

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF COLORADO

DOCKET NO. 05R-112E

IN THE MATTER OF THE PROPOSED RULES IMPLEMENTING RENEWABLE ENERGY
STANDARDS 4 CCR 723-3.

ORDER ADOPTING RULES

Mailed Date: December 15, 2005

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TABLE OF CONTENTS

I. BY THE COMMISSION	2
A. Statement	2
B. Procedural History	5
C. Statement, Findings, and Conclusions.....	8
1. Mandatory Use of WREGIS	8
2. Rule 3650 – Special Definitions.....	10
3. Rule 3651 – Overview and Purpose.....	11
4. Rule 3652 – Applicability	14
5. Rule 3653 – Municipal and Cooperative Utilities.....	15
6. Rule 3654 – Renewable Energy Standard.....	15
7. Rule 3655 – Resource Acquisition.....	18
8. Rule 3656 – Environmental Standards.....	23
9. Rule 3657 – QRU Compliance Plan	24
10. Rule 3658 – Standard Rebate Offer	27
11. Rule 3659 – Renewable Energy Credits	27
12. Rule 3660 – Cost Recovery.....	36
13. Rule 3661 – Retail Rate Impact	39
14. Rule 3662 – Annual Compliance Report	45
15. Rule 3663 – Compliance Report Review	50
16. Rule 3664 – Net Metering.....	54

17. Rule 3665 – Interconnection55

II. ORDER.....56

III. COMMISSIONER CARL MILLER CONCURRING, IN PART, AND DISSENTING, IN PART:.....58

A. Overview – Rule 365158

I. BY THE COMMISSION

A. Statement

1. Amendment 37 was approved by the Colorado voters on November 2, 2004 and became effective on December 1, 2004.¹ Subsequently, the Colorado Legislature passed Senate Bill 05-143, which clarified and modified Amendment 37 as more fully described below. Our primary purpose in adopting these rules implementing renewable energy standards is to reflect the voters and legislature’s intent, as reflected in the plain meaning of Amendment 37 and Senate Bill 05-143. Where the meaning of any provision is unclear, we have endeavored to promulgate policy that is best within the public interest, as the Commission is often called to do.

2. Amendment 37 requires all electric utilities in Colorado that have more than 40,000 customers, to meet a Renewable Energy Standard (RES). Electric utilities meeting this standard are referred to as a Qualifying Retail Utility (QRU) within the provisions of the Amendment. Amendment 37 requires QRUs to either generate or cause to be generated, electricity from renewable resources in the following percentages of their retail sales: three percent by 2007, six percent by 2011 and ten percent by 2015. Amendment 37 includes a provision that, of the required renewable resource amounts, four percent must be from solar electric resources and half of this four percent must be derived from customer on-site

¹ The Amendment was codified as § 40-2-124, C.R.S.

solar electric resources. As a means to encourage economic development in Colorado, Amendment 37 also allows QRUs to count each kilowatt-hour (kWh) generated in Colorado as 1.25 kWh for compliance purposes with the RES.

3. Amendment 37 also requires the Commission to analyze the effectiveness of utilizing any regional systems for the trading of Renewable Energy Credits (RECs) that are in existence at the time of the rulemaking. It also contains five provisions relating specifically to a standard rebate program for solar electric installations. The first provision is the establishment of a minimum standard rebate of \$2.00 per watt. The second provision limits the size of the facilities eligible for a rebate to 100 kilowatts per installation. The third provision allows an offset of a customer's consumption against its generation. The fourth provision reimburses the generating customer for any excess over its consumption at the utility's average hourly incremental costs over the prior twelve-month period. The fifth provision provides that QRUs shall not apply unreasonably burdensome interconnection requirements in connection with the Standard Rebate Offer (SRO).

4. Pursuant to the terms of Amendment 37, QRUs will be able to recover their actual costs associated with the RES. They also have the opportunity to earn an extra profit. The extra profit is limited to 50 percent of the net economic benefit derived from the QRU's investment in renewable energy technologies. A maximum retail rate impact to customers of one percent of the total electric bill annually is also imposed.²

² As discussed *infra*, Amendment 37 originally had a maximum retail rate impact of 50 cents per month for the average residential customer. However, it was silent regarding whether other classes of customers could be responsible for paying, and if so, how much. SB-143 modified this portion of the statute to be a maximum of one percent of the total electric annual bill, which is applied to all customers.

5. Amendment 37 further requires 20-year contracts with customers for the renewable electricity, but allows customers to choose a shorter contract length if they so choose. Additionally, all contracts for RECs from solar electric technologies located at customer facilities will have 20-year contract terms. Under the Amendment, the Commission may develop standard terms for the submission of third-party proposals for the sale of renewable energy and/or RECs.

6. Amendment 37 also contains provisions relating to Municipally Owned Electric Utilities (Municipals) and Rural Electric Cooperatives (Cooperatives). Both Municipals and Cooperatives that have over 40,000 customers in Colorado are subject to the RES. However, they can vote to exempt themselves or to self-certify. If they vote to exempt themselves, they have no obligation under the statute. If they self-certify, while they will still have to meet the various percentages (three percent by 2007, six percent by 2011 and ten percent by 2015), they can achieve them any way they choose (e.g., they may choose not to have a solar electric component). The clarifying legislation discussed below provides that when Municipals and Cooperatives inform the Commission that they have self-certified, the filing informing the Commission of that option is for informational purposes and no Commission action is required.

7. During the 2005 Legislative Session, the General Assembly enacted Senate Bill 05-143 (SB-143). The bill modified several sub-sections of § 40-2-124, C.R.S., including the treatment of Municipals and Cooperatives; the definition of eligible renewable resources; the minimum term of contracts for the acquisition of eligible renewable electricity; the maximum retail rate impact; the treatment of renewable resources acquired by a wholesale customer; the exemption of administrative penalties by the Commission in cases where the retail rate cap is reached; the Commission's treatment of statements by Municipals and Cooperatives that have

implemented substantially similar renewable energy standards; and, the treatment of Municipals and Cooperatives that become QRUs after December 31, 2006.

8. The statute also sets forth a timeline by which the Commission must complete promulgation of rules for the implementation of Amendment 37. The Commission is required to establish a rulemaking process that must commence no later than April 1, 2005 and must be completed by March 31, 2006.

B. Procedural History

9. At the February 9, 2005, Commissioners' Weekly Meeting, we directed Commission Staff (Staff) to conduct informal workshops in order to gather information for the preparation of the Notice Of Proposed Rulemaking (NOPR) for these rules. Prior to the commencement of the workshops, Staff issued 70 questions to interested persons soliciting their opinions and recommendations on how best to craft rules to implement Amendment 37. The informal workshops were held on March 4 and 10, 2005, and were well attended by a diverse set of individuals representing a wide range of interests. Staff incorporated much of the input received at those informal workshops into the NOPR. We subsequently issued the NOPR pursuant to Decision No. C05-0314 along with the proposed rules. The effective date of the NOPR was March 29, 2005.

10. The NOPR provided for two comment filing dates. Initial Comments were due no later than May 18, 2005 and Reply Comments were due no later than June 15, 2005. We also determined that we would hear this case en banc and set hearing dates of July 11 to 14, 2005.

11. Initial Comments were received from: Aquila, Inc. (Aquila); AWEA Small Wind Turbine Committee (AWEA Wind Committee); the Colorado Governor's Office of Energy Management and Conservation; Colorado Independent Energy Association (CIEA); Colorado

Association of Municipal Utilities (CAMU); the Colorado Office of Consumer Counsel (OCC); Colorado Rural Electric Association and Tri-State Generation and Transmission Association, Inc. (CREA/Tri-State); Energy Ad-hoc Citizens Group for Quick Implementation and Standardized Regulation of Amendment 37; Namaste Solar Electric, Inc. (Namaste); Public Service Company of Colorado (Public Service); Rocky Mountain Farmers Union; Southwest Windpower; Sundance Power; the Western Governors Association; and a group of entities known as Core37 comprised of: American Wind Energy Association, City of Boulder, Solar Energy Industries Association (CoSIEA), Colorado Renewable Energy Society (CRES), PanAero Corporation, PV NOW, Vote Solar Initiative, and Western Resource Advocates (WRA).

12. Reply Comments were received from AWEA Wind Committee; Boulder County Commissioners; CF&I Steel LP and Climax Molybdenum Company (CF&I/Climax); Clean Power Markets, Inc.; CREA/Tri-State; CIEA; CoSIEA; Core37; Public Service; the Town of Ignacio; and Southwest Colorado Renewable Energy Society.

13. In addition to those comments, the Commission received a large number of e-mails and individual letters from members of the public throughout the entire rulemaking process.

14. On June 8, 2005, we issued Decision No. C05-0640 to give supplemental notice of proposed rulemaking in light of the General Assembly's enactment of SB-143. The Commission invited additional comments from interested persons on the impact SB-143 may have on the proposed rules.

15. On July 1, 2005, Public Service, Aquila, OCC, the City of Boulder, WRA, CRES, CoSIEA, the American Wind Energy Association, CF&I/Climax, and CIEA (collectively, the Joint Movants) filed a joint motion to schedule additional hearing dates. Joint Movants indicated

that they had been meeting regularly since the filing of comments in this docket to determine whether common ground or compromise could be reached on the many issues that have been presented in this case. Joint Movants stated that significant progress had been made developing compromise recommendations; however, they had not reached the stage where any overall consensus had been reached. As a result, the Joint Movants asked for an additional six weeks to continue discussions. Joint Movants stated that they were hopeful the additional time would enable them to significantly reduce the number of disputed issues. The Joint Movants also indicated they would file full or partial compromise rules by August 15, 2005, and that they could provide comments before or on the additional hearing dates in support of any consensus rules. By Decision No. C05-0848, we granted the motion.

16. On June 22, 2005, we issued Decision No. C05-0791 establishing a public comment hearing for July 11, 2005 from 2:00 to 6:30 p.m. Twenty-four people spoke at the public comment hearing.

17. On July 6, 2005, we issued Decision No. C05-0848 to establish another public comment hearing for August 30, 2005 from 4:00 to 6:00 p.m. Thirty-eight people spoke at that public comment hearing.

18. On August 15, 2005, the Consensus Rules were filed. The parties to the Consensus Rules are Public Service, Aquila, OCC, the City of Boulder, WRA, CRES, CoSIEA, AWEA, CF&I/Climax, CREA/Tri-State, CAMU, and CIEA. The Consensus Rules included: Rule 3650 – Special Definitions, Rule 3652 – Applicability, Rule 3654 – Renewable Energy Standard, Rule 3658 – Standard Rebate Offer, Rule 3664 – Net Metering, and Rule 3655 – Interconnection.

19. Throughout this rulemaking the Commission has received additional or supplemental written comments from CIEA, the City of Boulder, Core37, CoSIEA, Namaste, and Public Service.

20. On August 30 and 31, 2005, we conducted hearings on this matter. Oral comments were made by: Robert Hix, Beth Chacon, and Karen Hyde for Public Service; Mike Apprill and David Atwood for Aquila; Rick Gilliam, Chris Cook, and Ronald Lehr for Core37; Nicholas Muller for CIEA; and Sue Ellen Harrison for the City of Boulder. There was also a presentation by Rasa Keanini of the California Energy Commission on behalf of the Western Renewable Energy Generation Information System (WREGIS). At the conclusion of the hearing, we provided the parties the opportunity to file Post-Hearing Comments. On September 14, 2005, the following parties filed Post-Hearing Comments: Aquila, CF&I/Climax, Core37, CREA/Tri-State, and Public Service.

21. We held deliberations on this matter on October 7, 2005.

C. Statement, Findings, and Conclusions

22. In establishing the RES for the State of Colorado, we considered the comments received as well as the intent of the voters who supported Amendment 37. Likewise, we considered the plain language of the statute to assist us in our decision-making process.

1. Mandatory Use of WREGIS

23. Section 40-2-124(1)(d), C.R.S. requires us to analyze the effectiveness of utilizing any regional system of renewable energy credits in existence at the time of the rulemaking process and determine if the system is governed by rules that are consistent with the rules established for this article. Prior to the hearing, Staff submitted a series of questions to WREGIS

which it believed would assist in determining whether we should require the use of WREGIS within these rules.

24. According to written and oral comments provided by WREGIS, it is a voluntary, independent renewable energy registry and tracking system for the Western Interconnect region.³ WREGIS stated that one of its primary roles is to help protect against double counting of RECs. Under WREGIS, RECs created in the Western Interconnect will be logged into a database for tracking purposes. One WREGIS certificate is based on one megawatt-hour of renewable energy generation. WREGIS will assign a unique serial number to each WREGIS certificate and log it into the database. It is through this process that double counting will be avoided since each certificate would not show up in more than one account at a time. WREGIS indicated that it plans to be operational in early 2007.

25. While WREGIS represented that its system will not be able to distinguish solar RECs generated by on-site customer solar electric systems from those generated by off-site customer solar electric systems, WREGIS did indicate that it is intended to be sufficiently flexible that the information regarding on-site solar electric systems could be added. According to WREGIS this information would likely be self-reported and not independently verified by WREGIS. Additionally, WREGIS indicated that there would be checks within the WREGIS system to ensure that homeowners did not report values that exceed the size of their facility.

26. WREGIS also represented that it does not establish guidelines or policies regarding the estimation of generation for a single meter, net meter consumers' RECs. However,

³ WREGIS would track REC activity in 11 western states and two Canadian provinces.

if a state were to propose a methodology, WREGIS may take that methodology into consideration as a future enhancement.

27. In response to a question as to how a utility would go about getting WREGIS to recognize these Green-e RECs for Colorado compliance purposes, the WREGIS representative explained that the issue would have to be brought before the permanent committee of WREGIS, and that it is really a Colorado issue whether it would choose to accept Green-e certificates for compliance purposes. WREGIS did not provide information on a fee structure for Green-e certification because WREGIS has recommended fees at this point in time, and it was not known whether Green-e certificates would have the same fee structure.

28. In its Final Comments, Tri-State asserts that it advocates the development of a REC market that encompasses at least the entire United States, if not the entire North American continent. It reiterated its opposition to the mandatory use of the WREGIS tracking system since it would only accommodate resources in the Western Interconnect, and certain aspects would not meet the Colorado RES requirements.

29. As discussed further *infra* regarding Rule 3659, we decline to mandate the use of WREGIS. We believe that mandated use would present problems for both Public Service and Aquila, since they have sister utilities with operations in the Eastern Interconnect and WREGIS cannot currently address the tracking of Eastern Interconnect created RECs. As a result, we believe it is appropriate for each QRU to develop its own internal database to track its RECs.

2. Rule 3650 – Special Definitions

30. The Consensus Rules included 18 definitions. We find that many of these definitions are an improvement over the original definitions included in the NOPR. As a result, we adopt the Consensus Rules' definitions.

31. We adopt a definition for “Co-fired Systems.” As discussed *infra* under Rule 3659, the Renewable Energy Credit Rule, to the extent that a renewable energy system utilizes fossil fuels in the production of energy, the QRU will be required to establish a methodology for determining the appropriate amount of RECs generated by those co-fired systems. We adopt the following definition:

“Co-fired System” means any system that combines the concept of co-firing (the simultaneous combustion of a supplementary fuel with a base fuel or a supplementary fossil fuel generation with a base renewable generation) with the traditional method of generation or the renewable generation. Co-firing biomass (i.e. wood waste) with coal is considered to be an acceptable method for generating “green power” in a utility plant.

32. We also adopt the same definition for “Person” that is in our Rules of Practice and Procedure. This definition is necessary because Rule 3663 (the Compliance Report Review) provides that interested persons may comment on the QRU’s Annual Compliance Report.

3. Rule 3651 – Overview and Purpose

33. Aquila contends that this is an optional rule. It believes that the Commission could exclude this rule, if it chooses, without violating the Colorado Administrative Procedure Act (APA). Aquila goes on to state that Core37’s proposed overview is not valid since it references two statutes, §§ 40-2-123 and 7-56-210, C.R.S., which were not part of the original NOPR. In its Initial Comments, Aquila provided a suggested redline version of this rule which deleted the following text that was included as part of the original NOPR Overview:

Electricity generated from renewable sources has less harmful environmental impacts than electricity generated from conventional fuels. The environmental benefits of using renewable energy include cleaner air and water, more efficient use of water, and less damage to the landscape. Using a variety of resources to meet Colorado’s increasing electricity needs will improve the stability and security of Colorado’s electricity supply. Increasing Colorado’s use of renewable energy will reduce its dependence on conventional fuels. It is the Commission’s policy that utilities should meet the renewable energy standard in the most cost-

effective manner and should use competitive bidding when it is administratively feasible.

34. In its Post-Hearing redline rules, Core37 includes additional language to the Overview and Purpose section to address the following items: 1) how Amendment 37 was passed by the voters of Colorado; 2) that these rules are to encourage local ownership of renewable facilities, and 3) the legislative declaration of intent which was originally included on the ballot for Amendment 37.

35. In its proposed redline rules, Public Service strikes the same text as Aquila, but includes a statement that Amendment 37 was enacted by the voters and amended by SB-143. Public Service states in its final written comments that it would have no objection to including the legislative declaration as it appeared on the ballot with Amendment 37 as part of this rule.

36. CREA/Tri-State expressed concern with what they characterize as the gratuitous and unfounded statements contained in this section of rules. They contend that the drafters of Amendment 37 could have included this type of language in the statute, but chose not to.

37. We adopt the Overview and Purpose section as it appears in the NOPR with several modifications, as suggested by the commenters. First, we include a statement which reads: “Section 40-2-124, C.R.S. was enacted by the voters of the State of Colorado as 2004 Ballot Amendment 37 and was amended by the 2005 Colorado General Assembly by Senate Bill 05-143.” Second, we decline to include the language suggested by Aquila and Public Service with the exception of the last sentence regarding the Commission’s policy statement on competitive bidding. That statement will be included as part of Rule 3655, the Resource Acquisition Rule. Third, we include the legislative declaration as it appeared on the Amendment 37 ballot (with Commissioner Miller dissenting on this issue), which reads:

Energy is critically important to Colorado's welfare and development, and its use has a profound impact on the economy and environment. Growth of the state's population and economic base will continue to create a need for new energy resources, and Colorado's renewable energy resources are currently underutilized. Therefore, in order to save consumers and businesses money, attract new businesses and jobs, promote development of rural economies, minimize water use for electricity generation, diversify Colorado's energy resources, reduce the impact of volatile fuel prices, and improve the natural environment of the state, it is in the best interests of the citizens of Colorado to develop and utilize renewable energy resources to the maximum practicable extent.

38. Finally, we decline to adopt the language suggested by Core37 relating to §§ 40-2-123 and 7-56-210, C.R.S. Section 40-2-123 generally provides that the Commission should give fullest possible consideration to the cost-effective implementation of new clean energy and energy efficient technologies. We have incorporated into our Least-Cost Planning (LCP) rules a rule to specifically address the requirements of this statute. Rule 3610(f) provides as follows:

In selecting its final resource plan, the utility's objective shall be to minimize the net present value of rate impacts, consistent with reliability considerations and with financial and development risks. The utility shall consider renewable resources; resources that produce minimal emissions or minimal environmental impact; energy-efficient technologies; and resources that provide beneficial contributions to Colorado's energy security, economic prosperity, environmental protection, and insulation from fuel price increases; as a part of its bid solicitation and evaluation process. Further, the utility shall grant a preference to such resources where cost and reliability considerations are equal.

39. Section 7-56-210 addresses renewable energy cooperatives and generally provides that it is the policy of the State to encourage local ownership or renewable energy generation facilities to improve the financial stability of rural communities. We note that, to the extent a renewable energy cooperative develops a proposed generation facility located in Colorado, under Rule 3654 a QRU would be more likely to select that Colorado-based facility since each kilowatt-hour of generation will be counted as 1.25 kilowatt-hours for compliance purposes. We find that no additional rules are necessary to encourage local ownership of generation facilities.

4. Rule 3652 – Applicability

40. In its Final Comments, CREA/Tri-State contend that they endorse the applicability section of the Consensus Rules. They state that their primary focus was to ensure that the rules did not purport to impose requirements on Cooperatives that were not authorized by the provisions of Amendment 37 or SB-143.

41. The Consensus Rules deleted NOPR Rule 3652(c). This paragraph sets forth the applicability of these rules to Municipals and Cooperatives. The Consensus Group's stated reason for striking this rule was its belief that we do not have jurisdiction over these entities, and thus we cannot promulgate rules with which they would have to comply. We disagree. We note that § 40-2-124(3), C.R.S. provides clear direction regarding municipally owned electric utilities and cooperative electric associations that, despite having voted to exempt themselves from Commission jurisdiction, are nonetheless considered a Qualifying Retail Utility. The statute requires that such utilities "submit a statement to the commission that demonstrates such municipal utility or cooperative electric association has a [renewable energy standard substantially similar to this section]." *Id.* That statutory provision goes on to indicate that the statement submitted by the municipal utility or cooperative electric association is for information purposes only and "not subject to commission approval." *Id.* Additionally, these statutory provisions require that the renewable energy standard of a municipally owned utility or cooperative electric association meet minimum criteria set out further in statute.

42. We find no ambiguity in the language of the statute and find that its requirements are in fact applicable to municipally owned electric utilities, as well as cooperative electric associations. We therefore find that Rule 3652 comports with the requirements of § 40-2-124(3).

However, we note that we assert Commission authority only pursuant to the terms of that section and require no further obligations than required under the statute.

43. As a result, we adopt NOPR Rule 3652(c), which sets forth the applicability of these rules to Municipals and Cooperatives. To address CREA/Tri-State's stated concern, we also adopt a new Rule 3652(e) to clarify that nothing in this section of rules is intended to expand the Commission's regulatory oversight and powers over Municipals and Cooperatives.

44. Lastly, we adopt a new rule, Rule 3652(d), to address a change made by SB-143. This new rule establishes a timeframe for compliance for any Municipals and Cooperatives, which is currently not a QRU, but subsequently becomes a QRU in the future. Rule 3652(d) reads:

For municipal utilities and cooperative electric associations that become qualifying retail utilities after December 31, 2006, the percentage requirements identified in Rule 3654(a) shall begin in the first calendar year following qualification as follows:

- (a) Years one through four: Three percent of retail electricity sales;
- (b) Years five through eight: Six percent of retail electricity sales; and
- (c) Year nine and thereafter: Ten percent of retail electricity sales.

5. Rule 3653 – Municipal and Cooperative Utilities

45. Consistent with their position on the applicability of these rules for Municipals and Cooperatives, the Consensus Rules deleted this rule in its entirety. As discussed *supra*, we disagree, and adopt this rule as it originally appeared in the NOPR.

6. Rule 3654 – Renewable Energy Standard

46. Public Service initially advocated a four-year compliance period, which would allow the QRUs a full four years to reach each level of the renewables standard. Using the first compliance period of a three percent standard for the years 2007 to 2010 as an example, under

Public Service's suggestion, a QRU could achieve less than three percent for 2007. However, as long as its average over the four years was three percent or more, it would be in compliance with the RES. Public Service also proposes to allow flexibility in counting eligible renewable energy generated in the preceding and following four-year periods for compliance toward the current period. It reasoned that a longer compliance period would eliminate the "boom-bust" cyclical swings that could result in higher costs of compliance if a QRU was obligated to meet the RES levels quickly. Public Service also proposed allowing QRUs to use RECs during the four-year compliance period in which they were created, as well as the previous and following four-year periods, or a total of twelve years.

47. Public Service also proposed an additional Rule 3654(j) to address its concern over the possible absorption of the entire budgeted one percent of retail electric billings on solar electric technologies, thus leaving no funds available to meet the non-solar portion of the RES. In order to address this possibility, it proposed that QRUs should be allowed to spend ten percent of the one percent retail rate cap figure for on-site solar and ten percent of the one percent retail rate cap figure for non-on-site solar, and still be considered to have complied with the RES.

48. Core37 advocated a literal interpretation of the law and NOPR rule that requires QRUs to provide three percent renewables for each of the compliance years 2007 to 2010, six percent for each of the compliance years 2011 to 2014, and ten percent for every year after 2015. Core37 expressed concern that, without such an interpretation of the RES, QRUs would have an incentive to delay compliance with the law.

49. Consensus Rule 3654 allows QRUs to "borrow forward." This provision would allow a QRU to count for compliance purposes renewable energy that has not yet been generated, with the understanding that the generation will be made up in future years to satisfy

its current year compliance obligations. As set forth in the Consensus Rules, a QRU may borrow forward eligible renewable energy generated from the two following compliance years. This borrow forward provision is to expire at the end of the 2010 compliance year.

50. Consensus Rule 3654 also proposes to extend the life of RECs to five years from the three years proposed in the NOPR. The Consensus Group proposes moving back the starting date from December 1, 2004 to January 1, 2004 for the eligibility of RECs to count for compliance purposes. The Consensus Rules also propose to remove the possibility of administrative penalties during the first four-year periods if the failure to comply with the RES was due to events beyond the reasonable control of the QRU and which could not have reasonably been mitigated by the QRU.

51. Consensus Rule 3654(h) proposes to prohibit a “double counting” of eligible renewable energy or the REC which is associated with the energy. According to the Consensus Group, double counting could occur, for example, if Eligible Renewable Energy is counted toward compliance with the Colorado RES and the REC associated with that energy is subsequently sold in another state. There are two possible exceptions to this requirement provided under Consensus Rules 3654(h) and (i). The first exception allows eligible renewable energy counted for compliance with the Colorado standard to be counted for a federal standard, should one be enacted. The second exception allows a QRU to request that the Commission allow it to use for compliance Eligible Renewable Energy that is included in an optional renewable energy pricing program. Finally, the Consensus Rules allow QRUs to generate, or cause to be generated, renewable energy without regard to economic dispatch.

52. We adopt Consensus Rule 3654 without modification. We find it will ease the transition for the QRUs to achieve compliance with the RES while still maintaining the original intent of the electorate.

7. Rule 3655 – Resource Acquisition

53. While Aquila states that it stands by the legal and regulatory arguments it made in its Initial Comments regarding this rule, it nonetheless states that it agrees with Public Service's supplemental comments and its proposed rule. Aquila believes Public Service's proposed rule provides an acceptable and workable manner in which to allow for competitive bidding in the acquisition of renewable energy resource, while respecting the LCP process.

54. Aquila also argues that Core37's proposed rule should be rejected because it would have a third-party administrator manage and control the competitive solicitation and bidding process. It contends that the powers and functions delegated to the third-party administrator under Core37's proposal would be an unlawful delegation of the Commission's legal authority to regulate utilities. Aquila asserts that the Commission cannot lawfully delegate its rate-making or regulatory supervision obligations to a third-party. It is concerned that the third-party administrator will not be adequately accountable to the Commission or to the governor and legislature, thereby creating a supra-legal entity with *de facto* power to interfere with or override the regulatory duties and jurisdiction of the Commission. Aquila also questions the costs that would be incurred to establish a third-party administrator, especially in light of the wide range that was provided during the hearing of between \$200,000 to \$2,000,000 annually. Aquila notes that these costs would reduce the pool of funds from which the QRUs will be able to acquire renewable resources. Lastly, Aquila claims that it will have to duplicate the third-

party administrator's work to ensure that it is correct for Aquila's systems, since it and not the third-party administrator would be subject to enforcement actions and administrative penalties.

55. One of the central elements to Core37's proposed rules is a third-party administrator. Core37 believes that having a process which is transparent will allow Colorado's citizens to be kept informed as to whether Amendment 37 is being implemented in accordance with the policies for which they voted. Core 37 also maintains that a benefit of a third-party administrator as it relates to this portion of the rules is that it will bring a fresh perspective, since its full mission is to help the QRUs achieve compliance. Core37 claims that the third-party administrator will be focused on eliminating needless barriers in the solicitation process. In Core37's opinion, these barriers can serve to weaken the potential market for renewable energy and, in particular, solar electric resources. Core37 proposes that the third-party administrator would have the following duties relating to the resource acquisition process: conduct the competitive solicitations for RECs (proposed Rule 3655(a)); provide all parties to the bid process adequate and timely notice of what is expected of them (proposed Rule 3655(d)); manage the SRO application process (proposed Rule 3655(g)(ii)); in consultation with the QRU, determine the number of RECs (proposed Rule 3655(j)); evaluate and rank competitive responses for RECs (proposed Rule 3655(k)); subtract the value of the electricity from combined bids in order to separately value REC bids (proposed Rule 3655(k)(vi)); notify respondents whether the competitive solicitation requirements have been met (proposed Rule 3655(k)(v)); provide the QRU the eligible solicitation responses ranked in preferential order on the basis of the weighting factors– (proposed Rule 3655(k)(vi)); and, arbitrate any dispute that may arise between the QRU and the successful bidders (proposed Rule 3655(m)).

56. Public Service indicates that it opposes the use of a third-party administrator, except when necessary to avoid conflicts of interest. According to Public Service, there is no requirement in this statute for a third-party administrator. Similar to the arguments raised by Aquila, Public Service believes Core37's proposal improperly usurps utility management discretion and improperly provides that the third-party administrator make all of the judgment calls that must be made in the course of resource acquisition. Public Service states that the use of a third-party administrator is not simply an "outsourcing" rule designed to save costs. It also echoes Aquila's added cost argument regarding a duplication of efforts and reduced pool of funds.

57. We decline to adopt a third-party administrator as it relates to these sections of rules. We are persuaded by the arguments of Aquila and Public Service regarding the duplication of effort by a QRU in order to double-check the third-party administrator's work, since ultimately it is the QRU that will be liable for any possible administrative penalties. We are further persuaded that use of a third-party administrator could improperly usurp the utility's management discretion. Consequently, we decline to amend the NOPR language for Option #1 – The Administrator Approach, but substitute the word "QRU" for the word "Administrator" throughout this rule. We also decline to amend the NOPR language for section (c) of the rule under Option #2 – The LCP Approach. We find that this rule is necessary in order to address the situation where the QRU, or an affiliate, intends to submit a bid into the competitive acquisition process. The purpose of the rule is to ensure the competitive acquisition process is conducted fairly when the QRU, or an affiliate, submits a bid. Finally, we incorporate the suggestions from both Public Service and Core37.

58. We first modify the rule by including Rule 3655(a), which states Commission policy on competitive acquisition under the RES as follows:

It is the Commission's policy that utilities should meet the renewable energy standard in the most cost-effective manner and should use competitive bidding for renewable energy systems greater than 10 kW.

59. Next, we expand the itemized list of the possible types of solicitations that a QRU may use in order to acquire the appropriate resource type of renewable energy (e.g., on-site solar) and the type of REC (e.g., non-on-site solar). We therefore adopt the changes suggested by Public Service and incorporate them throughout Rules 3655(b)(I) to (b)(VI).

60. We also create new Rule 3655(d)(IV) to make clear that all renewable energy supply contracts shall include language that the seller is relinquishing REC ownership to buyer. The new rule shall read that the renewable energy supply contract: "Shall require the seller to relinquish all REC ownership associated with contracted electricity to buyer."

61. In Rules 3655(f) and (g) we change the date from December 31, 2005 to the "beginning of 2006" in light of the uncertainty as to when these rules will be administratively final.

62. We also add section (j) to Rule 3655, which requires each QRU to provide timely notice of the bidding procedures. This rule was suggested by Core37.

63. We add section (k) to Rule 3655, which requires each QRU to disclose all information that will be used in the acquisition process. This rule, likewise, was suggested by Core37. Rule 3655(k) reads:

Each QRU shall disclose all information that will be used in the acquisition process, including but not limited to, interconnection and transmission studies, and methods for modeling or otherwise analyzing bids.

64. We adopt NOPR Option #2, section (c), to address the possibility that a QRU or an affiliate submit a bid within the Amendment 37 resource acquisition process. When this occurs, section (c) of the rule is intended to ensure no discussions occur within a QRU or between a QRU and an affiliate to make certain that the competitive acquisition process is fair.

65. We next insert the phrase “including tradable emission allowances savings” into the NOPR rule as an additional item to be considered by the QRU in the evaluation of REC solicitations. This phrase is included in order to reflect the true value of RECs. Therefore, Rule 3655(m)(I) reads as follows:

In addition to the cost of the RECs, consideration shall be given to the characteristics of the underlying renewable resource including reliability, viability, economic development benefits, energy security benefits, amount of water used, fuel cost savings, environmental impacts including tradable emissions allowances savings, load reduction during higher cost hours, transmission capacity and scheduling and any other factor the Commission determines is relevant to the solicitation. The Commission shall also determine prior to the solicitation the appropriate weighting of the factors for consideration

66. The next modification we make establishes that a QRU is not required to accept any REC bids that exceed 1.5 times the QRUs weighted average cost of RECs. While Core37 advocated for a three-times threshold, we find this could result in a QRU acquiring relatively expensive RECs which, in the long run, would reduce the pool of funds available for Amendment 37 purposes. This change is shown in Rule 3655(m)(III).

67. The last modification follows a suggestion by Core37 on disputes between bidders and the QRU. Core37 proposed an overly descriptive list of items for Commission Administrative Law Judges to consider when a dispute is referred to the Commission. We decline to adopt such a prescriptive rule, but instead adopt the following as Rule 3655(o): “If there is a dispute between the a bidder and the QRU, the bidder shall refer any disputes to the Commission for resolution.”

8. Rule 3656 – Environmental Standards

68. Aquila initially argued that only Rule 3656(a), which requires renewable electric generation facilities to meet all applicable federal, state and local environmental permitting requirements, should be adopted. However, in its Post-Hearing Comments, Aquila now agrees with Public Service's proposed rules for this section.

69. Core 37 also included NOPR Rule 3656(a), but proposes a new section 3656(b) to address renewable generation facilities bid that are larger than 2 MW and having any structures extending over 50 feet in height. Under this proposed rule, the bidder would be required to include a certification of completion of a preliminary biological site review. Core 37's proposed rule for this section is a modified version of NOPR Rule 3656(b), which addressed possible wind generation facilities. Core 37's Rule 3656(c) reads:

For renewable electric generation facilities larger than 2 MW with any structures extending over 50 feet in height, the QRU renewable energy supply contract shall require project developers to perform and make publicly available site specific avian and other wildlife surveys conducted on each proposed site prior to construction. Pre-construction surveys should conform to generally accepted practices, and should be designed to be appropriate to the site and its characteristics using existing information as well as professional assessments of risk to wildlife. The studies should include appropriate field surveys during the breeding, migrating, and/or wintering seasons, based on the preliminary biological site review. The results of these surveys shall be used in the design, placement, and management of the facilities to ensure that the environmental impacts of facility development are minimized to state and federally listed species and species of special concern, sites shown to be local bird migration pathways, critical habitat and areas where birds or other wildlife are highly concentrated and are considered at risk.

70. Public Service included NOPR Rule 3656(a) in its proposed redline rules. Public Service also included a rule similar to Core37's proposed Rule 3656(b); however, rather than require a prospective bidder to certify completion of a preliminary biological site review, Public

Service's proposed rule requires the bidder to include written documentation that consultations have occurred with appropriate governmental agencies.

71. We adopt NOPR Rule 3656(a) and Public Service's proposed rule 3656(b). We find that requiring prospective bidders to complete a preliminary biological site reviews, as Core37 suggests, could ultimately add additional costs to the resource acquisition process. At the bid submission stage, we find that it is appropriate for prospective bidders to include documentation of consultation(s) rather than completion of preliminary biological site reviews. Finally, we adopt a portion of Core37's proposed Rule 3656(c) with modification. We will not adopt the middle two sentences because we believe that those sentences are more appropriately part of the bid evaluation process that a QRU or independent third-party evaluator would conduct. Therefore we adopt Rule 3656(c) as follows:

For renewable electric generation facilities larger than 2 MW with any structures extending over 50 feet in height, the QRU renewable energy supply contract shall require project developers to perform and make publicly available site specific avian and other wildlife surveys conducted on each proposed site prior to construction. The results of these surveys shall be used in the design, placement, and management of the facilities to ensure that the environmental impacts of facility development are minimized to state and federally listed species and species of special concern, sites shown to be local bird migration pathways, critical habitat and areas where birds or other wildlife are highly concentrated and are considered at risk.

9. Rule 3657 – QRU Compliance Plan

72. The Consensus Group failed to reach agreement on this issue. The QRUs objected to the use of a third-party administrator. Aquila questioned the Commission's legal authority to outsource its decision-making powers, while Public Service objected to the additional costs that would be required for a program administration effort that largely duplicate what the QRUs need to do internally in order to manage their renewable energy programs. They both argued that the additional cost of a third-party administrator would redirect part of the

available funds, thus limiting the amount of money available to purchase renewable energy and invest in new renewables generation projects.

73. Aquila and Public Service both argue that the renewables program should function in parallel with the LCP process to the extent possible, particularly regarding the acquisition of eligible renewable energy from larger generating sources. They point out that the LCP avoids the use of a third-party administrator except when the utility itself is among the bidders for competitive supply of energy generation. In those cases the utility is required to hire a third-party evaluator to review the bids.

74. Core37 supported the use of a third-party administrator, citing what it believes to be the utilities' early opposition to Amendment 37; unwillingness to proceed at a rapid pace with implementation of the RES; and, their inexperience administering such a program, particularly regarding the procurement of energy from on-site and other solar resources. Core37 proposes to assign to the Commission all aspects of competitively selecting the administrator. It proposes that QRUs should compete for the third-party administrator contract, subject to the limitation that neither the administrator nor any of its affiliate companies would be allowed to participate in any competitive solicitation that it administers.

75. In addition to the substantial responsibilities of the third-party administrator proposed in Rule 3655, Core37 proposes to assign a broad range of responsibilities to the administrator, including: assisting QRUs to achieve "complete and timely compliance" with the renewable energy standard, in a cost-effective manner; balancing the granting of on-site solar contracts by ratepayer class; promoting system performance and vendor accountability; ranking bids in competitive solicitations with lowest cost as a primary criterion, and providing rankings to the QRUs, which would be bound to purchase energy based on those rankings; not be a

signatory to the contracts; reviewing QRU measurement and verification of RECs eligible for compliance with rule 3654; establishing a methodology for determining the appropriate amount of RECs generated by a co-fired system; forming a stakeholder advisory committee; reporting to the Commission each quarter objections and concerns raised by the QRUs, bidders, and advisory committee; and, maintaining a toll-free number and website to handle retail customer questions about the SRO program.

76. We adopt the QRU Compliance Plan rather than the third-party administrator approach. Since spending to accomplish the goals of the RES is capped at one percent of retail ratepayers' annual bills, we find that it is not prudent or reasonable to dedicate funds to the cost of a third-party administrator. This finding is consistent with Amendment 37, since the Commission was authorized to hire one new employee specifically dedicated to Amendment 37 implementation. We expect that, with these rules and the extensive comments received in this proceeding, the new Commission staff member will be able to ensure successful implementation and continuation of the State's RES. Finally, as discussed within Resource Acquisition Rule 3655, we are persuaded that it is the QRU and not the third-party administrator that could be subject to administrative penalties if compliance with the RES is not achieved.

77. We adopt Rule 3657(a), which combines elements of both the NOPR and the Public Service proposed rules. For the most part the rule we adopt generally tracks Public Service's proposed Rule 3657(a); however, we delete one of the sentences which provides that the Commission may approve or set the compliance plan for hearing. We find that issue is already addressed in Compliance Report Review Rule 3663. We also modify the last sentence of Public Service's proposed rule to include the concept that a compliance plan can include rules, regulations and tariffs, if applicable. As a result of these modifications, Rule 3657(a) shall read:

Every year on or before July 1, beginning in 2007, each QRU shall file with the Commission, by application, its proposed plan detailing how the QRU intends to comply with these rules during the next Compliance Year. Each QRU shall file with the Commission, by application, its proposed plan for the 2007 Compliance Year within 60 days after the effective date of these rules. Each annual QRU plan shall include rules, regulations and tariffs, if applicable, and the following:

78. Rules 3657(a)(I)(A) through (a)(I)(I) sets forth a list of items that a QRU must include in each annual compliance plan filing. The list mostly tracks Public Service's proposal, however, we have included new Rule 3657(a)(I)(A) so that each annual filing includes the determination of the retail rate impact pursuant to Rule 3661.

79. The next series of rules, 3657(a)(II) to (a)(VIII), are included in the NOPR's Option #1, the QRU plan. We reorder these rules based on their respective rule number and include the appropriate cross-reference rule number.

80. We adopt Public Service's proposed Rules 3657(b) and (c). These rules discuss how the QRU's plan can be either approved or modified by the Commission (Rule 3657(b)) and how a QRU may apply for approval of amendments to an approved plan (Rule 3657(c)).

10. Rule 3658 – Standard Rebate Offer

81. The Consensus Group was able to reach agreement on the rules regarding the SRO process. We adopt Consensus Rule 3658 without modification.

11. Rule 3659 – Renewable Energy Credits

82. In its Initial Comments, Aquila supported Public Service's position that the use of both RECs and WREGIS should be voluntary in order to allow the utilities flexibility to meet changing needs. In its Post-Hearing Comments, Aquila states that it stands by the legal and regulatory arguments it made in its Initial Comments regarding this rule. It also agrees with

Public Service's Supplemental Comments and with Public Service's revised Rule 3659, which according to Aquila is consistent with the Consensus Rules.

83. In its Post-Hearing Comments, CF&I/Climax notes that both Amendment 37 and SB-143 are silent regarding the definition of RECs. As a result, CF&I/Climax opines that it is left for the Commission to define the term REC in a way that gives full and complete meaning to the term as approved by the voters. CF&I/Climax advocates that enabling QRUs to meet their statutory obligation to comply with the standard by either acquiring renewable energy or renewable energy credits will appropriately satisfy the plain meaning of electric resource standards for renewable energy set forth in statute.

84. CIEA expresses concern regarding the ownership of RECs. CIEA argues that utilities buying power from Qualifying Facility (QF) generators on the basis of existing Power Purchasing Agreements (PPA) that are silent on the ownership of RECs cannot claim ownership of the RECs. It contends that Public Service's position that they own the RECs from agreements in place before the passage of Amendment 37 has been rejected by the Federal Energy Regulatory Commission (FERC) and the D.C. Circuit Court of Appeals.

85. The City of Boulder states that Public Service's position that it owns RECs from the pre-existing PPAs is not supported in the original NOPR nor in the rules proposed by Core37. Under contract law, the City of Boulder argues,

In order for a contract to be binding, there must be offer, acceptance and consideration. If terms not present in the original agreement come into play, one cannot extrapolate a new contract out of the old. The new agreement must be bargained for, and there must be a manifestation of mutual assent. See *Restatement of Contracts* § 22. [sic]

86. The City of Boulder continues, referring to *AmJur 2d Contracts*, § 501, that unless otherwise changed by statute, any new agreement that changes or cancels a contract

“requires some consideration in order to be valid.” Furthermore, City of Boulder argues that it paid for the construction and pays all operations and maintenance costs for its hydro facilities that sell energy to Public Service.

87. Core37 discusses two situations in which Public Service claims ownership of RECs. The first is the Qualifying Facility (QF) contracts that are silent on the ownership of renewables attributes. Regarding these contracts, Core37 cites FERC’s denial of rehearing in Docket No. EL03-133 on April 15, 2004, which held that:

...[O]nly renewable energy small power production facilities have renewable attributes, yet the energy from a cogeneration facility is priced the same as the energy from a small power production facility. Both are priced based on a purchasing utility’s avoided costs. The Commission thus reasonably concluded that avoided cost rates are not intended to compensate the QF for more than capacity and energy.

88. The second situation involves contracts in which the utility has provided financial incentives to the customer (*e.g.* existing on-site solar electric systems). Core37 maintains that Public Service should not be able to select the positive environmental attributes of these generating systems as a company asset unless it also accepts the potential financial liabilities of air and water pollution, or other contingencies for other QFs that provide energy produced using fossil fuels. Furthermore, Core37 expresses concern that Public Service’s definition of “any financial incentive” could be extended to net metering agreements, thus potentially allowing QRU’s to take ownership of RECs from owners of on-site solar electric systems without regard to whether those owners have already sold their RECs elsewhere.

89. Core37 also expresses concern regarding the purchase of RECs from other states to meet Colorado standards. In contrast to Public Service’s position that there is no developed market for RECs, Core37 maintains that there are already web-based platforms to trade solar RECs. They argue that, while there is a national market for RECs, the rules should limit energy

used for compliance to that which is either produced in Colorado or delivered to a Colorado QRU in order to gain the environmental benefits that are a goal of the statute. They argue that their position is supported by policies in Texas, NEPOOL (New England), Wisconsin and Nevada. Core37 takes the position that QRUs should be able to purchase SO-RECs from any in-state source, rather than limiting the program to QRU customers as Public Service recommends. Core37 supports the use of WREGIS, but agrees that a similar system should be used until WREGIS becomes available, and for RECs generated in other reliability regions.

90. CREA/Tri-State argues that RECs should be voluntary and that the market for RECs should be continental rather than limited to Colorado or the Western Interconnect. Tri-State wants assurances that its co-op customers and their members can participate in the REC market.

91. Public Service in its initial set of proposed rules supported providing maximum flexibility to the QRUs to design cost-effective approaches to the RES. This includes: extended life of RECs to cover three, four-year compliance periods; voluntary RECs without registration in a third-party recording or trading system; and, optional specification of REC ownership in Renewable Energy Supply Contracts. It contends that, if the contracts specify that the QRU does not own the RECs, neither the energy nor the REC may be counted for compliance with the RES. However, if the contract is silent on the ownership of the RECs, Public Service argues that the QRU may claim the RECs. The QRU would also own the RECs from any generation acquired under a utility tariff.

92. The Public Service proposed rules would also confer ownership of RECs to the QRU if it has provided a financial incentive for the installation of the resource, unless the contract with the QRU reserved ownership of the RECs. Finally, Public Service agrees with the

NOPR that accounting for RECs should be under FERC General Instruction 21 of the Uniform System of Accounts (18 CFR Part 101), and gains and losses in trading of RECs should be treated “in the appropriate rate mechanism approved by the Commission.”

93. In its Supplemental Comments, Public Service altered its compliance period from four years to one year, to be consistent with Consensus Rule 3654. It also removed the provision in its proposed Rule 3659(f) that allowed QF owners to keep ownership of RECs if they receive an incentive from the QRU. Public Service also changed its proposed Rule 3659(g)(i) to require that accounting for RECs be “in a manner acceptable to the Commission,” since the FERC rules are not sufficiently developed at this time, in its opinion.

94. As reflected above, a key area to be resolved is the ownership of RECs, particularly for the power purchase agreements (PPAs) entered into between Public Service and QFs prior to the passage of Amendment 37. These power contracts are silent on the ownership of RECs. The City of Boulder contends that the seller of the energy, not the buyer, should retain ownership of the REC if the contract fails to specify ownership. On the other hand, Public Service’s asserts that when it bought the energy from the QFs, it purchased all attributes of the energy, including any environmental benefits that would be represented by the REC.

95. The current industry standard is that renewable energy consists of two parts that are “bundled” together to create a REC - the energy itself and the environmental attributes. This view was supported by the WREGIS presentation of Ms. Keanini. In her opinion, if renewable energy is separated from the environmental attributes, it becomes the same as energy generated using fossil fuels, but the environmental attributes could then be sold separately.

96. A related issue is what entity has the authority to determine the ownership of the RECs. CIEA cited the FERC order (*American Ref-Fuel Company et. al.*, 105 FERC ¶ 61,004

(2003) *reh. den.*, 107 FERC ¶ 61,016 (2004)), in which FERC interprets its regulations implementing PURPA by holding that QF PPAs do not confer ownership of RECs. CIEA argues that, according to FERC, ownership of state-created RECs must be determined by state law, and Amendment 37 does not address this issue. In its Supplemental Reply Comments CIEA notes that Xcel Energy Services appealed that FERC decision to the D.C. Circuit Court of Appeals and the Court dismissed the appeal, finding that it did not have jurisdiction in that case. (*Excel Energy Services, Inc. v. Federal Energy Regulatory Commission*, No. 04-1182 (May 17, 2005)) [407 F.3d 1242; 2005 U.S. App. LEXIS 8677]. CIEA argues that this finding lets stand FERC's position that PPAs between utilities and QFs "do not convey RECs to the purchasing utility" absent a contractual provision to the contrary, [or to the extent] that state law might provide otherwise" (CIEA Supplemental Reply Comments p. 2).

97. We disagree with the arguments presented by the City of Boulder. We note that we do not recognize the "unbundling" of the RECs into the electricity and the environmental attributes from these facilities under the existing PPA contracts, which are silent on the ownership of RECs. We believe that the purchaser of the energy in these PPAs has purchased all attributes of that energy, which includes the RECs.

98. In reaching our conclusion, we look to the intent of the voters whether, when approving Amendment 37, they expected that QRUs would utilize a portion of the monies to purchase the RECs associated with these existing renewable energy QF contracts. We do not believe they did. We find that the voters who supported Amendment 37 viewed it as a means to "jump start" utilities to acquire new renewable energy resources, not to pay *existing* renewable energy providers additional money. Were we to hold otherwise, new ratepayer charges in a rider designated for renewable resources would be used not for acquiring additional renewable energy,

but as a windfall for existing producers of energy who were satisfied with contract terms entered into long ago without the promise of supplementary remuneration in the future.

99. Another issue of contention is whether the use of RECs for compliance purposes should be voluntary or mandatory. Public Service and Aquila advocate for a voluntary system of RECs, leaving the ownership of the RECs issue up to the parties to each individual contract. However we find that the use of RECs should be mandatory for compliance purposes to meet the RES. This is particularly important since there will be no third-party administrator to track the RECs. Therefore, a consistent system to issue and track RECs is essential to verify that the RES is being met. The issuance and tracking of RECs will also permit QRUs and owners of renewable energy resources to participate in the REC market as an additional revenue source.

100. As such, we adopt the NOPR Rule 3659 Option #2 for Rules 3659(a) to (c) with one additional new rule to address the Consensus Rules' "borrow forward" provision. Thus new Rule 3659(a)(VI) reads: "RECs borrowed forward from previous compliance years, pursuant to rule 3654(f)."

101. We also adopt Core37's proposed Rules 3659(d) and (e) because they are consistent with the Consensus Rules' treatment of RECs for the five-year lives and extending the eligibility of RECs to January 1, 2004 for compliance purposes. We also adopt Core37's proposed Rule 3659(f), with some changes. First, we separate Core37's proposed Rules 3659(f)(2) into two separate Rules 3659(f)(II), and (f)(IV). Rule 3659(f)(II) does not allow RECs from a blended energy product certified to include a fixed percentage of renewable energy in any other state or jurisdiction to count for the Colorado RES. Rule 3659(f)(IV) does allow renewable energy that is used to meet the Colorado RES to also be used to meet any federal standard that may be enacted. Core37's proposed rule 3659(f)(3) reads as follows: "May not be

used to make commercial environmental or renewable claims.” We are unsure what is meant by the word, “claims.” We adopt the following language for Rule 3659(f)(III): “May not be used in conjunction with commercial environmental or renewable offers unless otherwise authorized by the Commission.” We also adopt Core37 Rules 3659(g) and (h) that parallel NOPR Rules 3659(g) and (h), but have improved language as compared to the NOPR.

102. Next we adopt Rule 3659(i), which requires each QRU to establish a methodology to determine the appropriate number of RECs generated from co-fired facilities.

103. We note that FERC General Instruction 21 sets forth a methodology for accounting for emission allowances and not RECs. In the absence of definitive FERC instruction for the accounting of RECs, we decline to mandate the use of FERC General Instruction 21. Consequently, we adopt a new Rule 3659(j) based on the comments provided. The new rule will allow QRUs’ to develop an internal REC tracking system or use a third-party REC tracking system, so long as the system is auditable by Commission Staff, and cost-effective. Rule 3659 (j) reads:

(j) A QRU:

(I) Shall develop an auditable process to account for RECs using a central database. In the absence of a central third-party database, the QRU shall maintain its own internal REC database and shall make an extract of the REC information available on the utility’s website.

(II) Shall designate within its database any REC sold to a wholesaler if the REC has been assigned to that wholesaler.

(III) Shall apply for the inclusion of any losses or gains from the purchase or sale of RECs in the utility’s next applicable rate proceeding.

104. We further adopt new Rule 3659(k), which provides further detail as to what shall be included in the database each QRU will create and maintain. Rule 3659(k) reads:

The QRU shall record REC information from eligible renewable energy systems in a central database. The database shall include, but not be limited to, a list of all

registered eligible renewable energy systems, including their type, location, owner, operator, start of operation, projected and actual REC generation, ownership, transfer and retirement. A summary database shall be provided to the Commission Staff and be publicly viewable via the Commission's worldwide web. Owners of registered eligible renewable energy systems may, at their option, have their name and address encoded for privacy. Systems that are encoded for privacy shall have a unique identifying number assigned, and will continue to have the zip code reported.

105. The last issue within this section of rules concerns the use of a centralized database for tracking RECs. The NOPR provided two options regarding the use of WREGIS: mandatory or voluntary. While we prefer the use of a centralized third-party database that can issue and track RECs, we recognize that there are several limitations regarding the applicability of WREGIS in Colorado. First, WREGIS will serve only the Western Interconnect, while Colorado's QRUs have sister utilities which serve markets in the Midwest. We find that a situation could occur where a REC created in the Midwest would not be recorded in WREGIS, but which the QRU nonetheless might wish to use for compliance with the Colorado RES. As a result, the QRUs would be required to find other means to track RECs generated in the Midwest markets. Second, it is unclear whether WREGIS will be able to distinguish between on-site solar electric RECs and off-site solar electric RECs. Without such an ability, we find WREGIS lacking. We therefore adopt new Rule 3659(l) to better meet the needs of the Colorado market. Specifically, Rule 3659(l) reads:

In conjunction with the QRU Compliance Plans specified in rule 3657, a QRU may make a request that the Commission allow the use of a central third-party database to account for RECs. If a QRU proposes to use a central third-party database for the accounting of RECs, the QRU must show that the central third-party database can be readily audited by the Commission Staff to verify that the renewable energy standard is met and that the alternative system is cost effective.

12. Rule 3660 – Cost Recovery

106. In its Initial Comments, Aquila recommended that the Commission adopt the utility plan option contained in the NOPR. Under that utility plan option, the cost recovery issue would be a part of the utility's plan filed with the Commission. Aquila states that it now supports the proposed cost recovery rule jointly developed by Public Service and the OCC. Aquila believes this proposed rule will allow sufficient flexibility and does not conflict with the Commission authority to employ different, reasonable cost recovery methodologies for differently situated utilities and QRUs.

107. Core37, in its Post-Hearing Comments, states that its key concern in this section is Public Service's proposal for extra profit. It argues that the logical construction of the renewable energy statute leads to a review of the renewable resource package utilized for compliance as a whole. Core37 reasons that if the package of renewable resources acquired by a QRU to comply with the standard is less expensive than traditional non-renewable resources, then the utility can share in those cost savings, up to 50 percent. Core37 maintains that it is completely illogical for the ratepayers to give an extra profit to the QRU when the utility does not achieve compliance with the RES.

108. In a supplemental set of comments, Public Service states that it has developed a proposed cost recovery rule with the OCC. Its modified rule, according to Public Service, provides for timely cost recovery of Amendment 37 costs through adjustment clauses between rate cases. Its proposed rule also provides that costs in adjustment clauses that would otherwise be recovered through base rates are to be "rolled in" to base rates in general rates cases, rather than to continue to be recovered indefinitely through an adjustment clause. Public Service contends that this proposed rule makes it clear that no incentive should be earned on eligible

renewable energy if it is recovered through an incentive fuel adjustment clause. Further, Public Service argues that this restriction on fuel adjustment clauses would not undermine the QRU's entitlement to a bonus on ownership investments in eligible renewable energy resources.

109. We adopt Public Service's proposed cost recovery rule with some modifications. The first modification concerns the forward-looking cost recovery mechanism. We require that any QRU that implements a forward-looking cost recovery mechanism for Amendment 37 purposes shall separately identify that on customers' bills. We find that customers should be able to easily identify the amount of money they are contributing to the implementation of Amendment 37.

110. The next modification requires interest to be accrued on the unexpended balance of funds collected from a forward-looking rider. The interest rate to be applied to these unexpended funds shall be at the Commission's customer deposit interest rate. We impose this requirement because we believe that since customers of a QRU are contributing the money "up front" in order for the QRU to obtain more renewable resources, they are entitled to receive interest on any unexpended funds that the QRU does not spend in that year. Rule 3660(b)(I) also provides that a QRU may request interest on any funds it spends in excess of those collected through the forward-looking rider. The request for interest on excess expenditures shall include the reason(s) for the excess expenditures. This request for interest shall be included as part of the QRU's Annual Compliance Report, pursuant to Rule 3662. Rule 3660(b)(I) reads as follows:

Interest shall accrue on the unexpended balance of funds collected from a forward-looking rider. The interest rate shall be at the Commission's customer deposit interest rate at the time of the rider. A QRU may request interest on any funds it expends in excess of those collected through the forward-looking rider. The request for interest on excess expenditures shall include the reason(s) for the excess expenditures. The request for interest shall be included as part of the Annual Compliance Report, pursuant to Rule 3662.

111. We also add an additional sentence to Public Service's proposed rule to address the treatment of carry-forward amounts a QRU spends that exceeds the amount of money collected through the retail rate mechanism. Rule 3660(c) shall read as follows:

If the QRU incurs costs in acquiring Eligible Renewable Energy to meet the Renewable Energy Standard that exceed the maximum retail rate impact, the QRU shall be entitled to carry forward these costs to a future year for cost recovery. These carried forward amounts shall be used to reduce the next year's expendable amount as provided under the retail rate impact rule.

112. This rule will operate as follows: If a QRU has an annual Amendment 37 collection of \$15 million and in year-one spends \$17 million, then, in year-two, the QRU would still collect the \$15 million from its customers, but it should only spend \$13 million. Thus the \$2 million of excess spending from year one would be recovered by reduced spending in year two. We find this is an appropriate safeguard to ratepayers to mitigate swings in the Amendment 37 collection mechanism based on QRU spending patterns.

113. We also modify these rules by the addition of a new rule to ensure consistency in modeling inputs, methodologies and assumptions between model runs made for Amendment 37 and LCP purposes. We are concerned that, to the extent computer modeling runs are used in the calculation of the extra profit as provided in this rule, coupled with the calculation of the retail rate impact, as provided in Rule 3661, there should be consistency between these modeling runs and those made for LCP purposes. By way of example, this rule would not require a QRU to use the actual forecasted natural gas prices it used in its last LCP case for Amendment 37 modeling purposes, but instead would require the QRU to use the same methodology for forecasting natural gas prices that it used in its last LCP case. We also include within this rule a provision that a party may obtain the modeling inputs, methodologies and assumptions used for Amendment 37 modeling purposes subject to the Commission's standard confidentiality rules.

However, access to the modeling information does not extend to unsuccessful bid price information. Consistent with our previous rulings, unsuccessful bid price information generally should be afforded highly confidential treatment and be only available to the Staff of the Commission and the OCC.

114. The final modification we make is to add a new rule that states that any net economic benefit for which the QRU qualifies shall be included in the calculation of the retail rate impact pursuant to Rule 3661. We find this rule necessary to ensure that all recoverable costs are included in the calculation of the retail rate mechanism for Amendment 37.

13. Rule 3661 – Retail Rate Impact

115. As noted above, while the retail rate impact provided in Amendment 37 was limited to a hard cap of fifty cents per month per residential customer, the Colorado Legislature via Senate Bill 05-143 changed the cap to one percent per month for all customer classes. This generally has the effect of increasing over time the absolute dollar amount spent by ratepayers per month to comply with the RES mandate, because electricity costs over time have generally increased. Thus, while the one percent figure was likely chosen at the time of SB143 to equate with fifty cents per month for residential customers, the rider amount that will be charged to residential customers at the time of this decision will likely be higher, and increase over time.

116. In its Post-Hearing Comments, Aquila argues that it stands by the legal and regulatory arguments it made in its Initial Comments regarding this rule. However, after participating in the Consensus Rule negotiations, it now generally supports Public Service's Supplemental Comments and Public Service's revised Rule 3661. Aquila requests that the Commission add language to Public Service's Rule 3661(c) regarding the QRU's estimate in its Compliance Plan of the retail rate impact for the upcoming compliance year. It contends that

smaller QRUs such as Aquila should have the option to utilize an alternate method to determine its estimate of the annual net retail impact. Aquila maintains that in the first few years it will only need to add solar electric resources to meet the RES. It argues that, because of its unique situation, expensive computer modeling will not be cost-effective for it and will only reduce the pool of funds it can expend on renewable resources. Aquila contends that a comparison of modeling runs, in which the only difference is a fraction of a megawatt for its required solar electric resources, would produce results where the net cost or savings would be lost in the rounding.

117. Core 37 in its Post-Hearing Comments states that its concerns with this rule were addressed in detail within its comments on Rule 3660. It asserts that its proposed rule is consistent with the wording and intent of Amendment 37 and is simpler and cleaner than Public Service's proposed rule.

118. In its Post-Hearing Comments, Public Service notes that the dispute surrounding this rule centers upon the meaning of the second sentence of § 40-2-124(1)(g)(I), C.R.S., which reads: "The retail rate impact shall be determined net of new nonrenewable alternative sources of electricity supply reasonably available at the time of determination." *Id.* Public Service argues that what Core37 is asking the Commission to create is a rule that will result in a charge to customers of more than 50 cents per month.⁴ According to Public Service, what Core37 seeks is for Public Service to calculate the difference between production costs at its hydro plants, the Lamar Wind farm and other renewables on the one hand, and the production costs of new non-renewable resources on the other hand, and make this cost differential available through

⁴ Under SB-143, the 50 cents per month was changed to one percent of the total electric bill annually for each customer. According to Public Service, the 50 cents per month equates to a one percent figure for the average residential customer.

additional retail rate increases to fund new solar electric resources. Public Service takes the position that Core37's approach is not required by statute and is not consistent with the "legislative history" of Amendment 37.

119. Public Service notes that, based on its current retail revenue requirements, the one percent figure would generate \$19 million each year. Public Service concedes that there could be a situation where more than \$19 million can be made available each year for solar electric resources if Public Service also acquires new non-solar renewable resources that are cheaper than new nonrenewable alternative sources. In that situation, the entire portfolio of new renewable resources would not be more than one percent greater than new nonrenewable resources. Public Service summarizes the dispute surrounding this rule as which renewable resources should be considered "existing" and which should be considered "new." Its demarcation line is resources whose acquisition commenced after the effective date of the Commission's Amendment 37 rules.

120. In its Final Comments CREA/Tri-States advocate that the program costs only be recovered from retail customers, unless a wholesale customer of a QRU is also a QRU itself.

121. We adopt Public Service's proposed retail rate impact rule with some modifications. The first modification addresses the concern raised by Aquila for an alternate method to determine the estimate of the annual net retail impact for QRUs that only need to add solar electric resources to meet the RES. We modify Aquila's suggested rule language to clarify that the cost estimate is converted into a percent of total retail bill annually and the amount of solar electric generation technologies may need to be scaled back in order not to exceed the maximum retail rate impact. Thus Rule 3661(d) reads:

The QRU can use an alternate method to determine the estimate of the retail rate impact. The alternative method can be used for those RES Planning Period years when: 1) the capacity and energy requirements have already been met and included in the QRU's approved Electric Least-Cost Resource Plan; and 2) when the only remaining portion of the Renewable Energy Standard for which the QRU needs to comply with is Solar Electric Generating Technologies.

I). The retail rate impact will be determined by using the estimated costs of the proposed Solar Electric Generating Technologies less the estimated annual average costs of energy of existing resources that would be replaced with energy generated by the proposed Solar Electric Generating Technologies.

II) The QRU will then convert this net cost figure into a percent of total electric bill annually for each customer. In no event shall the percent of total electric bill annually exceed one percent for each customer. To the extent that the net cost figure results in the QRU exceeding the one percent for each customer threshold, the QRU shall modify its acquisition of Solar Electric Generating Technologies in order to not exceed the maximum retail rate impact.

122. We next modify this section of rules by adding a new rule to ensure consistency in modeling inputs, methodologies and assumptions between model runs made for Amendment 37 purposes and LCP purposes. As discussed *supra* regarding Rule 3660, we are concerned that, to the extent computer modeling runs are used in the calculation of the retail rate impact as provided in this rule, and given the requirement for the calculation of extra profit as provided in Rule 3660, there must be consistency between the various model runs. We adopt Rule 3661(e) to address this concern.

123. We also establish a demarcation line for which resources are considered "existing resources" for the retail rate impact analysis. The term "existing resources" will mean resources that are included in both model runs (the RES Plan and the No RES Plan). We disagree with Core37 that a renewable facility which is currently operational, like Public Service's Lamar Wind farm, should only be considered as a part of the RES Plan and thus capable of contributing "savings" which could increase the dollar amount available under the retail rate cap for Amendment 37 purposes. We find that any renewable resource that is currently operational

should be included in both model runs. These currently operational renewable resources provide ratepayers tangible cost savings when they do generate electricity. Using the Lamar Wind farm as an example, because its operational costs are lower than Public Services' next dispatchable natural gas generation facility,⁵ when the wind blows and generates electricity Public Service can ramp down its last dispatched natural gas generation facility.⁶ When this occurs, Public Services' actual cost of generation falls for all customers and those savings are passed on to ratepayers via its Electric Commodity Adjustment (ECA). If we were to adopt Core37's recommendation, ratepayers would still get the reduced generation costs via the ECA, but would be required to give them back through the Amendment 37 retail rate mechanism. We find that the voters did not intend such a result. We do not find language within the statute or the legislative declaration from which it could be concluded that these renewable energy savings would be "recycled" into increased spending on Amendment 37.

124. If anything, including only resources that are actually operational as within the definition of "existing resources" provides more spending under the retail rate cap than would be provided if we strictly adhered to a matching principle, i.e., that the benefits of only renewable resources acquired as a result of implementing Amendment 37 should be netted against the cost of the same resources. It is our understanding that Public Service's ongoing all-source RFP does not contain any preference for wind energy, thus wind resources are being compared on a cost basis with all other non-renewable resources. According to comments provided by both Public Service and Aquila, implementation of Amendment 37 will not result in any new spending on

⁵ During the hearing, Public Service witness Ms. Hyde testified she believed that the Commission approved the Lamar Wind farm in part because of the hedge that it provided to gas prices for its customers. See Transcript Volume 1 of 2, page 58, lines 14 to 20.

⁶ Presumably, this last dispatched unit will be Public Service's highest cost generation facility because it follows economic dispatch principles.

wind resources; rather, virtually all spending on energy procurement pursuant to the RES will be for solar resources for the first few years. This means that, while the benefits of wind procured through Public Service's ongoing RFP will be counted to allow more spending under the retail rate cap (which will be spent on solar resources for the first few years), the cost of procuring such wind energy will not, at least until wind generation is no longer cost-competitive with other resources, reduce the amount of additional spending under the retail rate impact calculation.⁷

125. Nevertheless, we disagree with Public Service's position that any resources that are being acquired by a QRU under its pending LCP acquisition process (i.e., ongoing RFP) should be included in both model runs and not count toward the retail rate impact. We find that, because these potential resources are not currently operational, ratepayers are not receiving their tangible cost savings through a fuel adjustment clause. If we were to adopt Public Service's proposed demarcation line, none of the "modeled savings" would be available to ratepayers in the determination of the retail rate impact. In summary, we find the proper demarcation line for whether a resource should be included in both models runs is whether it is currently operational and able to create actual cost savings for the ratepayers.

126. We also impose an administrative cost cap of ten percent. We are persuaded that Amendment 37 program costs should be capped as other states have done. According to Core37's witness Mr. Cook, in California program administrative costs are limited to ten percent

⁷ One of the reasons wind power is currently likely to be cost competitive with other resources, in addition to the high cost of natural gas, is Congress' recent extension of the Production Tax Credit to 2007. Assuming no re-extension of the PTC, whether wind energy will continue to be cost-competitive with non-renewable resources will depend upon, among other things, the cost of natural gas and coal, environmental costs, and the operating efficiencies and capital costs of different generation plant types. It is only if wind energy costs to meet the RES mandate are higher than non-renewable resources that Amendment 37 has any effect with respect to wind energy, i.e., additional monies will be spent on wind generation to meet the RES mandate, up to the retail rate cap.

of the overall program budget.⁸ We believe a ten percent cap is reasonable. However, in light of expected higher administrative costs incurred during the initial ramp-up stage of a QRU's Amendment 37 program, Rule 3661(g) provides for a waiver request during the early years of a program. Rule 3661(g) reads:

The administrative costs of a QRU to implement these rules is capped at ten percent per year of the total annual collection. A QRU may include in its Compliance Plan a waiver request of this rule during the initial ramp-up stage of the QRU's program.

127. The final modification we make is the addition of a new rule to address a change made by SB-143 for wholesale customers who themselves are QRUs purchasing electricity from their wholesale provider. Rule 3661(h) shall therefore read as follows:

If a wholesale customer agrees to pay the full costs associated with the acquisition of renewable resources and associated renewable energy credits by its wholesale provider, the wholesale customer shall be entitled to receive the appropriate credit toward the renewable energy standard as well as any associated renewable energy credits. To the extent that the full costs are not recovered from wholesale customers, a qualifying retail utility shall be entitled to recover those costs from retail customers.

14. Rule 3662 – Annual Compliance Report

128. Aquila in its Post-Hearing Comments states that it stands by the legal and regulatory arguments presented in its Initial Comments in which it initially favored NOPR option #1.⁹ In light of its support for the Consensus Rules, however, Aquila now believes Public Service's proposed Rule 3662 to be an acceptable rule, except for paragraphs (c) and (d). Public Service's proposed Rule 3662(c) would require a QRU to make an affirmative showing that it is in compliance with each component of the standard or explain why it had difficulty meeting the standard. Public Service's proposed Rule 3662(d) would require that, if a QRU did not comply

⁸ See Transcript Volume 1 of 2, page 199, lines 16 to 25 and page 200, lines 1 to 8.

⁹ Option #1 has the Annual Compliance Report as part of the utility's plan.

with the standard for each component as a direct result of absolute limitations within a requirements contract from a wholesale electric supplier, then the QRU must show that it acquired a sufficient number of RECs or verified energy savings or both to rectify noncompliance so as to excuse the QRU from administrative fines.

129. Aquila argues that the Commission should reject these portions of Public Service's proposed rule. It believes paragraph (c) is unnecessary given the requirements of Public Service's proposed Rule 3662(a), requiring the annual reporting of all the information relevant to compliance with the standard. Aquila also argues that paragraphs (c) and (d) should be stricken because they violate the QRU's rights to due process of law guaranteed by Article II, Section 25 of the Colorado Constitution, the 16th Amendment of the U. S. Constitution, and its statutory rights under Colorado Public Utilities Law to present a defense against an enforcement or third-party complaint proceeding. According to Aquila, the proposed requirement under Rule 3662(c) for a QRU to "make an affirmative showing that it achieved compliance" for the compliance years with each component of the standard would force the QRU effectively to admit that it failed to comply, thereby waiving numerous defenses in an enforcement action or third-party complaint. Aquila believes that this would be tantamount to the QRU pleading *nolo contendere* to an enforcement action or third-party complaint before it was ever filed. It believes that requiring a QRU to explain its defenses to any enforcement action or third-party complaint would give the complainant a decidedly unfair advantage in crafting its charging pleading or complaint. In Aquila's opinion, Public Service's proposed Rule 3662(d) also suffers from the same flaws of requiring a detailed explanation of facts that likely will be among the QRU's defenses. It believes that paragraph (d) has no place in the annual report, but instead belongs in the answer to an enforcement or complaint proceeding. Aquila objects to the detailed reporting

contained in Core37's proposed Rules 3662(c) through (g). Aquila contends this reporting is not required by § 40-2-124, C.R.S., and it is extraneous. Lastly, it agrees with Public Service's Supplemental Comments, which opposed these reporting requirements sought by Core37. Included with Aquila's Post-Hearing Comments were a redline version of Rule 3662.

130. Core37 notes in its Post-Hearing Comments that its proposed Rule 3662(a) and Public Service's proposed Rule 3662(a) are nearly identical. It attributes this to the fact that this rule addresses the basic compliance information for the past Compliance Year only.

131. Core37 proposes in its Rule 3662(b) that QRUs include in their Annual Compliance Reports information regarding the four subsequent Compliance Years. This information would include: forecasted retail electricity sales; the quantities of each type of RECs it expects that it will need to comply with the standard; a description of the method used by the QRU to develop these forecasts; a description of the plans by which the QRU expects to obtain the forecasted quantities of each type of RECs, projected retail rate impact; and whether the QRU, its affiliates or subsidiaries intend to acquire ownership interest in a facility whose energy or associated RECs would be utilized to comply with the standard.

132. In its proposed Rule 3662(c), Core 37 seeks additional evaluation of the following:

- (i) Whether consumers and businesses have saved money due to implementation of the statute that provides for calculations including but not limited to the Net Present Value of Revenue Requirements calculated at each target date contained in the statute of the eligible renewable energy resources acquired compared with other resources that would have been acquired but for the renewable energy requirements;
- (ii) Whether new business and jobs have resulted from renewable energy acquisitions, including but not limited to the numbers of new businesses, business expansions, and jobs created by supplying goods and services and associated employment created by acquisition of renewable energy required by statute;

- (iii) Whether renewable energy acquisitions have promoted rural economies, including but not limited to capital investment, tax base, employment, business activity, tax revenue, and personal and corporate income in rural areas;
- (iv) Whether water use for electric generation has been reduced, by including in its reports comparative statistics on water use by renewable energy acquired under these rules with conventional electric generation;
- (v) Whether the diversity of Colorado's energy resources has increased, including but not limited to percentages of total generation resource by type;
- (vi) Whether the volatility of fossil fuel prices has been impacted by renewable energy generation acquisition;
- (vii) Whether the natural environment of the state has improved, by providing reports on impacts on air pollution levels, water pollution, and land impacts;
- (viii) Whether renewable energy resources have been developed and utilized to the maximum practicable extent, including but not limited to quantification of available renewable resources compared with those being used;
- (ix) Information that addresses whether and to what extent the QRU has encouraged local ownership of renewable energy generation facilities to improve the financial stability of rural communities; and
- (x) Any other information available to the QRU that addresses whether implementation of renewable energy standards under these rules meets the policy goals contained in Section 3651.

133. Core37 provides an optional rule for QRUs to file Annual Compliance Reports for calendar years 2005 and 2006. Core 37's Proposed Rule 3662(e) requires the QRU to post a copy of its Annual Compliance Report to its website. Its proposed Rule 3662(f) requires QRUs to provide a detailed explanation as to why it did not meet the standard during the most recent compliance year. Lastly, Core37's proposed Rule 3662(g) requires a QRU to conduct informational meetings twice per year approximately six months apart.

134. In its Supplemental Comments, Public Service notes that it made certain changes to this rule when it incorporated the Consensus Rules into its proposed rules submitted with its Initial Comments. According to Public Service, the major changes to this rule were to accommodate the reduction in the compliance period from four years to one; add the borrow

forward and payback concept; and add a reporting section which contains only those reports which it believes are relevant to compliance with the standard.

135. Under Public Service's proposed Rule 3662(a), the first Annual Compliance Report would be filed on July 1, 2008 and every July 1 thereafter. Its proposed Rule 3662(b) gives the QRU the option of providing to the Commission electronic copies of the Annual Compliance Report files. Public Service's last two Rules 3662(c) and (d) were discussed previously within the Aquila comments on this rule.

136. We adopt Public Service's proposed Rule 3662 with modifications. Our first modification is to change the date of the first Annual Compliance Report from 2008 to 2007. We also change the date upon which Annual Compliance Reports are filed from July 1 to June 1. We find that there should be adequate time between the filing of the Annual Compliance Report and filing of the Compliance Plans for interested parties to review and possibly suggest changes in pending Compliance Plans based on lessons learned from the most recently completed compliance year.

137. The next modification we make inserts the concept of requiring the QRU to separately identify the amounts of megawatt-hours sold, Eligible Renewable Energy, or RECs by each type of resource for Rules 3662(a)(I), (a)(II), (a)(VIII), and (a)(IX). We find this modification necessary because under the RES each QRU has three components for which it must achieve compliance, 1) on- site customer solar resources, 2) off- site customer solar resources, and 3) all other renewable resources. We find this last component is too broad for reporting purposes. A QRU should readily be able to report how much electricity or RECs it generated or acquired by resource type (i.e., how much was wind-related, hydro-related, geothermal-related, etc.),

138. We generally agree with the legal arguments raised by Aquila regarding the affirmative showing and due process concerns. In order to address these concerns, we amend Public Service's language in Rule 3662(b) and (c) to incorporate the concept of explaining whether it achieved compliance instead of an affirmative showing.

139. Rule 3662(b) shall therefore read as follows:

In the Annual Compliance Report, the QRU must explain whether it achieved compliance with its Renewable Energy Standard for each of the components during the current Compliance Year, or explain why the QRU had difficulty meeting the Renewable Energy Standard.

140. Rule 3662(c) shall read as follows:

If, in its Annual Compliance Report, the QRU did not comply with its Renewable Energy Standard for each of the RES components as a direct result of absolute limitations within a requirements contract from a wholesale electric supplier, then the QRU must explain whether it acquired a sufficient amount of either eligible RECs or documented and verified energy savings through energy efficiency and/or conservation programs, or both to rectify the noncompliance so as to excuse the QRU from any administrative fine or other administrative action.

141. Rules 3662(d) and (e) require QRUs to post a non-confidential version of its reports on its website and provide the Commission the necessary electronic files for us to post it on our website on the same date the QRU files its Annual Compliance Report.

15. Rule 3663 – Compliance Report Review

142. Aquila in its Post-Hearing Comments states that it stands by the legal and regulatory arguments presented in its Initial Comments. It has no objections to Public Service's proposed Rule 3663(a) and (b), but does object to Public Service's proposed Rules 3663(c), (d), and (e) because they create legal and constitutional problems for QRUs, in its opinion. Aquila's concerns with these three subsections include due process concerns because, without notice to the QRU of the alleged violations and without evidentiary hearing, they require the Commission to prejudge and determine that the QRU did not comply with the RES.

143. Aquila is also concerned that the process set forth in these subsections places the burden of proof on the QRU in the evidentiary hearing on the compliance report to prove that it complied with the RES, thus relieving the trial staff of its legal obligation to seek a show cause filing or a third-party complaint action. Included with Aquila's Post-Hearing Comments was a redline version of rule 3663.

144. In its Post-Hearing Comments, Core37 argues that a hearing would only be necessary in cases where the QRU is not in compliance with the RES. Core 37 asserts that there can be a number of reasons, for instance that the QRU has reached the cost cap, affecting the QRU's ability to achieve the RES. It contends that the Commission should err on the side of more public involvement and scrutiny, especially in the early years. Core37 also recommends that QRUs be precluded from claiming highly confidential treatment of materials supporting QRU claims. Lastly, Core 37 encourages the Commission to adopt rules to ensure that the cost of noncompliance is clearly some multiple of the cost of compliance.

145. Public Service in its Post-Hearing Comments takes issue with the strict liability standard advocated by Core37. It contends that strict liability is not favored in law outside of a specific set of circumstances or activities. Public Service states that it advocates for a *mens rea* standard in the determination of penalties for QRUs that fail to achieve full compliance with the RES. According to Public Service, this standard would consider the activities that the QRU had employed to comply with Amendment 37 and would require that the QRU have acted imprudently in some way before it is penalized.

146. We adopt the NOPR language for this rule as a starting point. However, within the rule we incorporate suggestions from Aquila, Public Service and Core37. First, we delete

NOPR Rule 3663(a), since it is included as part of Rule 3660. The next series of modifications address the Compliance Reporting requirements under the rules.

147. Regarding Aquila's concern over the affirmative showing by a QRU for compliance with the RES, we strike the phrase "make an affirmative showing" and replace it with the phrase "explain whether" in Rule 3663(a)(I). Thus the rule shall read as follows:

In the annual compliance report, the QRU must explain whether it complied with its renewable energy standard for the solar, on-site solar and non-solar components during the most recently completed compliance year

148. Next we add Public Service's suggested language to Rule 3663(a)(II), which provides the QRU the opportunity to reply to all comments filed in response to the QRU's Annual Compliance Report. Rule 3663(a)(II) shall read:

Upon receipt of the QRU annual compliance report, the Commission will provide notice to interested persons. Interested persons will have 30 days within which to provide comment to the Commission on the content of the annual compliance report. The QRU shall have the opportunity to reply to all comments on or before 45 days following the filing of the annual compliance report.

149. We also add Public Service's suggested language to Rule 3663(a)(III), which clarifies that Staff's recommendation must be made within 60 days of the filing of the Annual Compliance Report. Rule 3663(a)(III) shall read:

The Staff of the Commission shall review the annual compliance report and any comments received and within 60 days of the filing of the annual compliance report make a recommendation to the Commission as to whether the QRU has met the Renewable Energy Standard and no action should be taken by the Commission, whether any changes are needed to the compliance report, or whether a hearing is necessary.

150. We also agree with Public Service's suggestion and add a new rule that requires the Commission to issue an order stating whether the QRU complied with the RES. Rule 3663(a)(IV) therefore shall read:

Upon review of the QRU's annual compliance report, the Staff recommendation and all comments filed, the Commission will issue an order stating that the QRU complied with the components of its Renewable Energy Standard during the most recently completed compliance year.

151. We next add minor language changes suggested by Core37 to better clarify Rule 3663(a)(V). We also modify Rule 3663(a)(V)(B) to be consistent with our ruling to adopt the Consensus Rules' five year REC lives standard rather than the three years originally proposed in the NOPR. Thus Rule 3663(a)(V) reads as follows:

If the Commission determines that the total number of RECs which the QRU generated or acquired from renewable energy systems during the most recently completed compliance year exceeded the total number of RECs which the QRU needed to comply with each component of its renewable energy standard for the recently completed compliance year:

(A) The Commission will state in its order the number of excess solar, on-site solar and/or non-solar RECs which the QRU has available to carry forward from that compliance year or use for any other legal purpose.

(B) The QRU may use those excess solar, on-site solar and/or non-solar RECs to comply with its renewable energy standard for the five compliance years immediately following that compliance year.

152. Our next set of modifications address the Compliance Report Hearing process as set forth in Rule 3663(b). The first modification adopts the additional text suggested by Public Service to address the possibility that the reason for non-compliance with the RES was due to the retail rate impact limit. Rule 3663(b)(I) shall read as follows:

If the Commission determines that the QRU did not comply with the solar, on-site solar or non-solar components of its renewable energy standard during the most recently completed compliance year, the Commission will determine whether the QRU failed to meet the Renewable Energy Standard because of the Retail Rate Impact limit. The Commission will:

(A) State in its order the number of RECs by which the QRU failed to comply with each of the solar, on-site solar and non-solar components of its renewable energy standard; and

(B) State whether the Commission is satisfied that the failure to meet the Renewable Energy Standard was due to the Retail Rate Impact limit. If the

Commission is not satisfied on this issue, the Commission will issue a notice of possible noncompliance and schedule an evidentiary hearing on the matter.

153. Regarding the Compliance Penalties process as set forth in Rule 3663(c), we modify Rule 3663(c)(I) to address Aquila's due process concerns by replacing the phrase "the compliance" with the phrase "notice and possible non-compliance." Therefore Rule 3663(c)(I) reads:

If after notice and possible non-compliance report hearing, the Commission determines that the QRU did not fully comply with any of the solar, on-site solar and non-solar components of its renewable energy standard during the most recently completed compliance year or if the Commission determines that the QRU did not comply with any other provisions of the rules, the Commission shall take the following actions:

154. Next, we adopt Core37 suggestion regarding Rule 3663(c)(I)(B) to provide that no administrative penalties shall be assessed if the QRU was limited by the retail rate cap. As such, Rule 3663(c)(I)(B) shall state in part: "Assess no administrative penalties against a QRU if the amount of the shortfall is attributable to the Retail Rate Impact limit."

155. We further add new Rule 3663(c)(I)(C) to include the option that the Commission may take no action if the failure of the QRU to comply with the RES was beyond its reasonable control.

156. The final modification we make here is to add the phrase "through the QRU's rates" to the end of this rule as suggested by Core37. Rule 3663(c)(II) shall then read: "The cost of such bill credits or penalties shall not be recovered from retail customers through the QRU's rates."

16. Rule 3664 – Net Metering

157. We adopt the Consensus Rules for Net Metering without modification.

17. Rule 3665 – Interconnection

158. We adopt the Consensus Rules for Interconnection with one modification. During the hearing, Core37 witness Mr. Cook explained that it was, in his opinion, an oversight in drafting Consensus Rules for Interconnection because there is no insurance provision for larger generators above 10 kilowatts. He asserts that it is unclear what would happen for facilities greater than 10 kilowatts. He could not opine with certainty whether there would be no insurance requirement or it would be at the discretion of each utility as to what insurance requirement they would require for larger equipment. He suggests a \$2 million general liability limit for all commercial generators up to two megawatts in size.

159. Within their Post-Hearing Comments, Public Service provides additional language to address this same concern. We find that Public Service's language best addresses this issue, and therefore adopt its additional language by creating new Rule 3665(d)(xi), which shall read:

xi) Insurance

1) For systems of 10 kW or less, the Customer, at its own expense, shall secure and maintain in effect during the term of the Agreement liability insurance with a combined single limit for bodily injury and property damage of not less than \$300,000 for each occurrence. For systems above 10 kW and up to 2 MW, Customer, at its own expense, shall secure and maintain in effect during the term of the Agreement liability insurance with a combined single limit for bodily injury and property damage of not less than \$2,000,000 for each occurrence. Insurance coverage for systems greater than 2 MW shall be determined on a case-by-case basis by the utility and shall reflect the size of the installation and the potential for system damage.

2) Except for those solar systems installed on a residential premise which have a design capacity of 10 kW or less, the utility shall be named as an additional insured by endorsement to the insurance policy and the policy shall provide that written notice be given to the utility at least thirty (30) days prior to any cancellation or reduction of any coverage. Such liability insurance shall provide, by endorsement to the policy, that the utility shall not by reason of its inclusion as an additional insured incur liability to the insurance carrier for the payment of premium of such insurance. For all solar systems, the liability

insurance shall not exclude coverage for any incident related to the subject generator or its operation.

3) Certificates of Insurance evidencing the requisite coverage and provision(s) shall be furnished to utility prior to the Date of Interconnection of the Generation System. Utilities shall be permitted to periodically obtain proof of current insurance coverage from the generating customer in order to verify proper liability insurance coverage. Customer will not be allowed to commence or continue interconnected operations unless evidence is provided that satisfactory insurance coverage is in effect at all times.

II. ORDER

A. The Commission Orders That:

1. The Commission adopts the Proposed Rules Implementing Renewable Energy Standards 4 CCR 723-3 attached to this Order as Attachment A.

2. The opinion of the Attorney General of the State of Colorado shall be obtained regarding the constitutionality and legality of the rules.

3. A copy of the rules adopted by the Order shall be filed with the Office of the Secretary of State for publication in *The Colorado Register*. The rules shall be submitted to the appropriate committee of the Colorado General Assembly if the General Assembly is in session at the time this Order becomes effective, or to the committee on legal services, if the General Assembly is not in session, for an opinion as to whether the adopted rules conform with § 24-4-103, C.R.S.

4. The 20-day time-period provided by § 40-6-114(1), C.R.S. to file an application for rehearing, reargument or reconsideration shall begin on the first day after the effective date of this Order.

5. This Order is effective upon its Mailed Date.

**B. ADOPTED IN COMMISSIONERS' DELIBERATIONS MEETING
October 7, 2005.**

(S E A L)



ATTEST: A TRUE COPY

A handwritten signature in cursive script that reads "Doug Dean".

Doug Dean,
Director

THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

GREGORY E. SOPKIN

POLLY PAGE

CARL MILLER

Commissioners

COMMISSIONER CARL MILLER
CONCURRING, IN PART,
DISSENTING, IN PART.

III. COMMISSIONER CARL MILLER CONCURRING, IN PART, AND DISSENTING, IN PART:

A. Overview – Rule 3651

1. Recognizing the Commission’s and Staff’s goal to reduce, streamline, and simplify regulations, I see no need to include the legislative declaration as an overview for Rule 3651. The legislative declaration has no force of law and is therefore meaningless in this rulemaking proceeding. Including the legislative declaration may in fact cause confusion and a misinterpretation, thereby providing opportunity for unwarranted challenges and disputes.

2. I believe Senate Bill 05-143 captures the spirit and intent of Amendment 37 as expressed by the Colorado voters. It should be noted that no attempt was made by individuals, parties, or organizations to include the legislative declaration language in statute (*i.e.*, SB-05-143).

3. For the reasons stated, I oppose the inclusion of the legislative declaration as an overview statement to Rule 3651.

THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

CARL MILLER

Commissioner

RENEWABLE ENERGY STANDARD

3650.	Special Definitions	2
3651.	Overview and Purpose	4
3652.	Applicability.....	4
3653.	Municipal and Cooperative Utilities	5
3654.	Renewable Energy Standard	5
3655.	Resource Acquisition.....	7
3656.	Environmental Impacts.....	10
3657.	QRU Compliance Plan	10
3658.	Standard Rebate Offer	11
3659.	Renewable Energy Credits.....	14
3660.	Cost Recovery	16
3661.	Retail Rate Impact.....	17
3662.	Annual Compliance Report	19
3663.	Compliance Report Review	20
3664.	Net Metering	22
3665.	Interconnection	23
	NOTE: The following rule is numbered using the FERC’s numbering convention and not the Colorado Commission’s numbering convention. This rule largely tracks FERC Order 2006.....	23
	Attachment 1 - Definitions.....	35
	Attachment 2 - Level 1 10 kW Inverter Process	36
	Application for Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than 10kW	36
	Attachment 3.....	39
	Certification Codes and Standards	39
	Attachment 4.....	39
	Certification of Small Generator Equipment Packages.....	39

Attachment 5..... 40

Terms and Conditions for Level 1 Interconnections -- Small Generating Facility No Larger than 10kW 40

1.0 Construction of the Facility 40

2.0 Interconnection and Operation 40

3.0 Safe Operations and Maintenance 41

4.0 Access 41

5.0 Disconnection 41

6.0 Indemnification..... 41

7.0 Insurance 41

8.0 Limitation of Liability 42

9.0 Termination 42

9.1 By the Customer..... 42

9.2 By the utility 42

9.3 Permanent Disconnection 42

9.4 Survival Rights..... 42

10.0 Assignment/Transfer of Ownership of the Facility..... 42

3666. – 3699. [Reserved] 42

3650. Special Definitions

The following definitions apply only to rules 3650 – 3665.

- (a) “Annual Report” means the report a QRU is required to file annually with the Commission pursuant to Rule 3662 to demonstrate compliance with the standard.
- (b) "Biomass" means nontoxic plant matter consisting of agricultural crops or their byproducts, urban wood waste, mill residue, slash, or brush; animal wastes and products of animal wastes; or methane produced at landfills or as a by-product of the treatment of wastewater residuals.
- (c) “Compliance Year” means a calendar year for which the Renewable Energy Standard is applicable.
- (d) “Co-fired System” means any system that combines the concept of co-firing (the simultaneous combustion of a supplementary fuel with a base fuel or a supplementary fossil fuel generation

with a base renewable generation) with the traditional method of generation or the renewable generation. Co-firing biomass (i.e., wood waste) with coal is considered to be an acceptable method for generating "green power" in a utility plant."

- (e) "Eligible Renewable Energy Resources" are facilities that generate electricity by means of the following energy sources: solar radiation, wind, geothermal, biomass, hydropower, and fuel cells using hydrogen derived from Eligible Renewable Energy Resources. Fossil and nuclear fuels and their derivatives are not eligible energy sources. Hydropower resources in existence on January 1, 2005 must have a nameplate rating of thirty megawatts or less. Hydropower resources not in existence on January 1, 2005 must have a nameplate rating of ten megawatts or less.
- (f) "Off-grid On-site Solar System" means an On-site Solar System located on the premises of an end-use electric consumer located within the service territory of a QRU or an electric utility that is eligible to become a QRU pursuant to §40-2-124(5)(b), C.R.S. that is not connected to, and operates completely independently from, the distribution system or transmission system facilities of any electric utility.
- (g) "On-site Solar System" means a Solar Renewable Energy System located on the premises of an end-use electric consumer located within the service territory of a QRU or an electric utility that is eligible to become a QRU pursuant to §40-2-124(5)(b), C.R.S. For the purposes of this definition, the non-residential end-use electric customer, prior to the installation of the Solar Renewable Energy System, shall not have its primary business being the generation of electricity for retail or wholesale sale from the same facility. In addition, at the time of the installation of the Solar Renewable Energy System, the non-residential end-use electric customer must use its existing facility for a legitimate commercial, industrial, governmental, or educational purpose other than the generation of electricity. An On-site Solar System is limited to a maximum size of 2 MW.
- (h) "Person" means Commission staff or any individual, firm, partnership, corporation, company, association, cooperative association, joint stock association, joint venture, governmental entity, or other legal entity.
- (i) "Qualifying Retail Utility" or "QRU" means any provider of retail electric service in the state of Colorado that serves over 40,000 customers.
- (j) "Renewable Energy" means energy generated from Eligible Renewable Energy Resources.
- (k) "Renewable Energy Credit" or "REC" means a contractual right to the full set of non-energy attributes, including any and all credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, directly attributable to a specific amount of electric energy generated from an Eligible Renewable Energy Resource. One REC results from one megawatt-hour of electric energy generated from an Eligible Renewable Energy Resource. For the purposes of these rules, RECs include, but are not limited to, S-RECs and SO-RECs.
- (l) "Renewable Energy Standard" means the electric resource standard for Eligible Renewable Energy Resources specified in §40-2-124, C.R.S.
- (m) "Solar Electric Generation Technologies" means any technology that uses solar radiation energy to generate electricity.
- (n) "Solar On-site Renewable Energy Credit" or "SO-REC" means a REC created by an On-site Solar System.

- (o) "Solar Renewable Energy Credit" or "S-REC" means a REC created by a Solar Renewable Energy System. For the purposes of these rules, S-RECs include, but are not limited to, SO-RECs.
- (p) "Solar Renewable Energy System" means a system that uses a Solar Electric Generation Technology to generate electricity.
- (q) "Standard Rebate Offer" or "SRO" means a standardized incentive program offered by a QRU to its retail electric service customers for On-site Solar Systems that do not exceed 100 kW per installation.
- (r) "Watt" means a unit of measure of alternating current electric power at a point in time, as capacity or demand. For the purposes of measurement of output from Solar Renewable Energy Systems used in the solar program, the watts referenced herein mean those determined by a nationally accepted testing organization.

3651. Overview and Purpose

The purpose of these rules is to establish a process to implement the renewable energy standard for qualifying retail utilities in Colorado, pursuant to the power to regulate public utilities delegated to the Commission by §24-4-101 C.R.S., *et seq.*, §40-2-108 C.R.S., §40-3-102 C.R.S., §40-3-103 C.R.S., §40-4-101 C.R.S., and §40-2-124 C.R.S.

Section 40-2-124 was enacted by the voters of the State of Colorado as 2004 Ballot Amendment 37 and was amended by the 2005 Colorado General Assembly by Senate Bill 05-143.

Energy is critically important to Colorado's welfare and development, and its use has a profound impact on the economy and environment. Growth of the state's population and economic base will continue to create a need for new energy resources, and Colorado's renewable energy resources are currently underutilized.

Therefore, in order to save consumers and businesses money, attract new businesses and jobs, promote development of rural economies, minimize water use for electricity generation, diversify Colorado's energy resources, reduce the impact of volatile fuel prices, and improve the natural environment of the state, it is in the best interests of the citizens of Colorado to develop and utilize renewable energy resources to the maximum practicable extent.

3652. Applicability

- (a) Rules 3650 to 3665 shall apply to all jurisdictional electric utilities in the state of Colorado which serve over 40,000 customers, that have not voted to exempt themselves, and are subject to the Commission's regulatory authority.
- (b) The board of directors of each QRU subject to these rules may, at its option, submit the question of its exemption from these rules to its consumers on a one meter equals one vote basis. Approval by a majority of those voting in the election shall be required for such exemption, providing that a minimum of 25% of eligible consumers participate in the election.
 - (l) Within 45 days of the conclusion of any vote for exemption, the QRU shall provide written notification of the outcome of the vote to the Director of the Commission.
- (c) The board of directors of each municipally owned electric utility or rural electric cooperative not subject to these rules may, at its option, submit the question of whether to be subject to these

rules to its consumers on a one meter equals one vote basis. Approval by a majority of those voting in the election shall be required for such inclusion, providing that a minimum of 25% of eligible consumers participates in the election.

- (I) Within 45 days of the conclusion of any vote to be subject to these rules, the municipally owned electric utility or rural electric cooperative shall provide written notification of the outcome of the vote to the Director of the Commission.
- (d) For municipal utilities and cooperative electric associations that become qualifying retail utilities after December 31, 2006, the percentage requirements identified in Rule 3654(a) shall begin in the first calendar year following qualification as follows:
 - (I) Years one through four: Three percent of retail electricity sales;
 - (II) Years five through eight: Six percent of retail electricity sales; and
 - (III) Year nine and thereafter: Ten percent of retail electricity sales.
- (e) Nothing in these rules is intended to expand the Commission's regulatory oversight and powers over municipally owned electric utilities or rural electric cooperatives.

3653. Municipal and Cooperative Utilities

- (a) If a municipally owned electric utility or a rural electric cooperative implements a renewable energy standard substantially similar to the provisions of §40-2-124 C.R.S., then the governing body of the municipally-owned electric utility or rural electric cooperative may self-certify the renewable energy standard and upon self-certification will have no obligations under this article.
- (b) The municipally owned utility or rural electric cooperative shall submit a statement to the Commission that demonstrates such a utility or cooperative has a substantially similar renewable energy standard. In order for a such a utility or cooperative to self-certify, such renewable energy standard shall at a minimum meet the following criteria:
 - (I) The eligible renewable energy resources must be limited to those identified in subsection §40-2-124(1)(a);
 - (II) The percentage requirements must be equal to or greater in the same years than those identified in subsection §40-2-124(1)(c)(I); and
 - (III) The utility must have an optional pricing program in effect that allows retail customers the option to support through utility rates emerging renewable energy technologies.
- (c) The statement to be submitted by a municipally owned utility or rural electric cooperative is for information purposes only and is not subject to approval by the Commission.
- (d) Nothing in this section prohibits a municipally owned electric utility or a rural electric cooperative from buying and selling RECs.

3654. Renewable Energy Standard

- (a) Each QRU shall generate or cause to be generated (through purchase or by providing rebates or other form of incentive) Eligible Renewable Energy in the following minimum amounts:

- (I) 3% of its retail electric energy sales in Colorado for each of the Compliance Years 2007 through 2010;
 - (II) 6% of its retail electric energy sales in Colorado for each of the Compliance Years 2011 through 2014;
 - (III) 10% of its retail electric energy sales in Colorado for each Compliance Year beginning in 2015 and continuing thereafter.
- (b) Of the Eligible Renewable Energy amounts specified in Rule 3654(a), at least four percent shall be derived from Solar Electric Generation Technologies. At least one-half of this four percent shall be derived from On-site Solar Systems located at customers' facilities.
- (c) For purposes of compliance with the Renewable Energy Standard, each kilowatt-hour of Eligible Renewable Energy generated in Colorado shall be counted as 1.25 kilowatt-hours of Eligible Renewable Energy.
- (d) For purposes of compliance with this Renewable Energy Standard, a QRU may generate, or cause to be generated, and count Eligible Renewable Energy for compliance:
- (I) For the Compliance Year immediately preceding the Compliance Year during which it was generated, provided that such Eligible Renewable Energy is generated no later than July 1 of the calendar year immediately following the end of the Compliance Year for which it is being counted;
 - (II) For the Compliance Year during which it was generated; or
 - (III) For the five Compliance Years immediately following the Compliance Year during which it was generated.
 - (IV) Eligible Renewable Energy generated on or after January 1, 2004 may be counted for compliance with this Renewable Energy Standard. Renewable Energy or RECs generated on or before December 31, 2003 shall not be eligible for, and shall not be counted for, compliance with this Renewable Energy Standard. The eligibility for compliance of all Eligible Renewable Energy shall expire at the end of the fifth calendar year following the calendar year during which it was generated.
- (e) For purposes of compliance with this Renewable Energy Standard, a QRU may substitute the equivalent RECs, S-RECs, or SO-RECs for Eligible Renewable Energy.
- (f) For the first four Compliance Years, 2007 through 2010, the QRU may borrow forward Eligible Renewable Energy generated during the following two Compliance Years. Any borrowed Eligible Renewable Energy generated during a Compliance Year must be made up by actual Eligible Renewable Energy generated during that Compliance Year or borrowed from subsequent Compliance Years, provided that the 2010 Compliance Year is the last Compliance Year that borrowing forward may occur pursuant to this rule. For purposes of this rule, the term "borrow forward" means that a QRU may count Eligible Renewable Energy that it has not yet generated or caused to be generated to satisfy its current year obligations toward compliance with the Renewable Energy Standard and the term "made up" means that any counting of Eligible Renewable Resources by a QRU in a Compliance Year that it had not actually generated nor caused to be generated shall be actually generated or caused to be generated in a subsequent year.

- (g) For the first four Compliance Years, 2007 through 2010, no administrative penalties shall be assessed against a QRU if the failure to meet the Renewable Energy Standard results from events beyond the reasonable control of the QRU which could not have reasonably been mitigated by the QRU.
- (h) For purposes of compliance with this Renewable Energy Standard, there shall be no “double counting” of Renewable Energy or RECs. Notwithstanding the foregoing, Eligible Renewable Energy generated or acquired by a QRU and counted toward compliance with a federal renewable energy standard may also be counted by the QRU toward compliance with the Renewable Energy Standard.
- (i) A QRU may apply to the Commission for a determination as to whether Eligible Renewable Energy sold by the QRU under an optional renewable energy pricing program may be counted by the QRU toward compliance with the Renewable Energy Standard. Such Eligible Renewable Energy shall not be counted toward compliance with the Renewable Energy Standard until the Commission grants approval of the utility’s application following an evidentiary hearing.
- (j) For purposes of compliance with this Renewable Energy Standard, if a generation system uses a combination of fossil fuel and Eligible Renewable Energy Resources to generate electricity, a QRU may count only as Eligible Renewable Energy the proportion of the total electric output of the generation system that results from the use of Eligible Renewable Energy Resources. The QRU shall include in its Annual Compliance Report the method of calculation used to determine the proportion of Eligible Renewable Energy.
- (k) The QRU may generate, or cause to be generated, Eligible Renewable Energy without regard to economic dispatch procedures.

3655. Resource Acquisition

- (a) It is the Commission’s policy that utilities should meet the Renewable Energy Standard in the most cost-effective manner and should use competitive bidding for renewable energy systems greater than 10 kW.
- (b) Competitive solicitations shall be conducted by each QRU to achieve the statutory policies contained in the legislative declaration of intent. To the extent possible, solicitations and evaluation of proposals should be coordinated to avoid redundancy and to minimize the cost of acquiring renewable energy and RECs. There shall be separate solicitations for:
 - (I) Renewable Energy from On-site solar systems (SO-RECs);
 - (II) Renewable Energy from Solar Energy Systems that are not on-site solar systems (S-RECs);
 - (III) Renewable Energy from non-solar resources such as wind, geothermal, biomass, hydropower, fuel cells;
 - (IV) Renewable Energy Credits;
 - (V) Solar Renewable Energy Credits; and
 - (VI) Solar On-site Renewable Energy Credits.

- (c) Each QRU shall develop standardized solar and non-solar electricity and REC contracts, and REC-only contracts, in advance of their first solicitation. Such contracts shall be submitted to the Commission for approval.
- (d) Renewable Energy Supply Contracts:
 - (I) Shall be for the acquisition of both electricity and RECs;
 - (II) May reflect a fixed price, or a price that varies by year; and
 - (III) Shall have a minimum term of 20 years (or shorter at the sole discretion of the seller).
 - (IV) Shall require the seller to relinquish all REC ownership associated with contracted electricity to buyer.
- (e) Renewable Energy Credit Contracts:
 - (I) Shall be for the acquisition of RECs only;
 - (II) May reflect a fixed price, or a price that varies by year; and
 - (III) Shall have a minimum term of 20 years.
- (f) Competitive solicitations for renewable energy credit contracts that provide SO-RECs from on-site solar systems shall be conducted at least two times per year by each QRU beginning in 2006.
 - (I) The treatment of any solar-generated electricity generated on-site in excess of the consumption of the host facility will be governed by the net metering provisions pursuant to Rule 3664.
- (g) Competitive solicitations for the acquisition of S-RECs shall be conducted by each QRU every three years with the initial solicitation beginning in 2006. S-REC requirements not likely to be met may be solicited from SO-REC providers.
- (h) Competitive solicitations for eligible renewable energy systems for those systems using eligible renewable resources other than solar shall be conducted by each QRU in a timeframe that takes into account the projected needs of the QRU. REC requirements not likely to be met may be solicited from S-REC and SO-REC providers.
- (i) Each competitive solicitation pursuant to these rules shall be for a fixed number of SO-RECs, S-RECs and RECs with the number determined by the QRU taking into account:
 - (I) The need to purchase the three classes of RECs for use to meet the QRU's future compliance requirements, and
 - (II) The estimated number of SO-RECs procured under and expected to be procured under the standing SO-REC offer.
- (j) Each QRU shall provide all parties to the bid process timely notice of bidding procedure.
- (k) Each QRU shall disclose all information that will be used in the acquisition process, including but not limited to, interconnection and transmission studies, and methods for modeling or otherwise analyzing bids.

- (l) If the QRU intends to accept proposals for renewable resources from the QRU or from an affiliate of the QRU, it shall include a written separation policy and name an independent auditor whom the utility proposes to hire to review and report to the Commission on the fairness of the competitive acquisition process. The independent auditor shall have at least five years' experience conducting and/or reviewing the conduct of competitive electric utility resource acquisition, including computerized portfolio costing analysis. The independent auditor shall be unaffiliated with the utility; and shall not, directly or indirectly, have benefited from employment or contracts with the utility in the preceding five years, except as an independent auditor under these rules. The independent auditor shall not participate in, or advise the utility with respect to, any decisions in the bid-solicitation or bid-evaluation process. The independent auditor shall conduct an audit of the utility's bid solicitation and evaluation process to determine whether it was conducted fairly. For purposes of such audit, the utility shall provide the independent auditor immediate and continuing access to all documents and data reviewed, used or produced by the utility in its bid solicitation and evaluation process. The utility shall make all its personnel, agents and contractors involved in the bid solicitation and evaluation available for interview by the auditor. The utility shall conduct any additional modeling requested by the independent auditor to test the assumptions and results of the bid evaluation analyses. Within 60 days of the utility's selection of final resources, the independent auditor shall file a report with the Commission containing the auditor's views on whether the utility conducted a fair bid solicitation and bid evaluation process, with any deficiencies specifically reported. After the filing of the independent auditor's report, the utility, other bidders in the resource acquisition process and other interested parties shall be given the opportunity to review and comment on the independent auditor's report.
- (m) Responses to competitive SO-REC, S-REC and REC solicitations shall be separately evaluated and ranked by the QRU.
- (I) In addition to the cost of the RECs, consideration shall be given to the characteristics of the underlying renewable resource including reliability, viability, economic development benefits, energy security benefits, amount of water used, fuel cost savings, environmental impacts including tradable emissions allowances savings, load reduction during higher cost hours, transmission capacity and scheduling and any other factor the Commission determines is relevant to the solicitation. The Commission shall also determine prior to the solicitation the appropriate weighting of the factors for consideration.
- (II) Bids with prices that vary by year will be evaluated by discounting the yearly prices at the utility discount rate.
- (III) A QRU is not required to accept any bid that exceeds 1.5 times the weighted average cost of RECs in all bids for any individual solicitation, unless authorized by the Commission.
- (IV) For purposes of comparing bids for RECs only with bids for electricity and RECs, the electricity shall be assigned the value contained in the applicable QRU's avoided capacity and energy tariff on file with the Commission. The QRUs will subtract this value from the electricity and RECs bid, and evaluate bids on the basis of RECs only, taking into account the value of any associated rebates.
- (V) Within 15 days, the QRU shall notify respondents as to whether the competitive solicitation requirements have been met.
- (VI) Within 45 days, the QRU will evaluate the eligible solicitation responses and rank in preferential order on the basis of the weighting factors.
- (n) Upon ranking of eligible bids, each QRU shall:

- (I) Within 15 days indicate to all respondents with which proposals it intends to pursue a contract, and
 - (II) Within 45 days have substantially completed contract negotiations.
- (o) If there is a dispute between a bidder and the QRU, the bidder shall refer any disputes to the Commission for resolution.

3656. Environmental Impacts

- (a) Renewable electric generation facilities must meet all applicable federal, state, and local environmental permitting requirements.
- (b) For Eligible Renewable Energy Resources larger than 2 MW with any structures extending over 50 feet in height, the QRU shall require project developers to include in the bid package written documentation that consultation occurred with appropriate governmental agencies (for example, the Colorado Division of Wildlife or the U.S. Fish and Wildlife Service) responsible for reviewing potential project development impacts to state and federally listed wildlife species, as well as species and habitats of concern.
- (c) For Eligible Renewable Energy Resources larger than 2 MW with any structures extending over 50 feet in height, the QRU renewable energy supply contract shall require project developers to perform and make publicly available site specific avian and other wildlife surveys conducted on each proposed site prior to construction. The results of these surveys shall be used in the design, placement, and management of the facilities to ensure that the environmental impacts of facility development are minimized to state and federally listed species and species of special concern, sites shown to be local bird migration pathways, critical habitat and areas where birds or other wildlife are highly concentrated and are considered at risk.

3657. QRU Compliance Plan

- (a) Every year on or before July 1, beginning in 2007, each QRU shall file with the Commission, by application, its proposed plan detailing how the QRU intends to comply with these rules during the next Compliance Year. Each QRU shall file with the Commission, by application, its proposed plan for the 2007 Compliance Year within 60 days after the effective date of these rules. Each annual QRU plan shall include rules, regulations and tariffs, if applicable, and the following:
 - (I) The QRU's:
 - (A) Determination of the retail rate impact pursuant to Rule 3661;
 - (B) Estimate of its retail electricity sales;
 - (C) Estimate of the Eligible Renewable Energy that the QRU already has acquired and the QRU's estimate of the additional Eligible Renewable Energy that will be needed to meet the Renewable Energy Standards;
 - (D) Estimate of the funds that the QRU will have available to generate, or cause to be generated, additional Eligible Renewable Energy under the Retail Rate Impact rule;
 - (E) Plan to acquire additional Eligible Renewable Energy given the constraints of the Retail Rate Impact rule, including the allocation of the funds available under the

Retail Rate Impact rule to acquire Renewable Energy or RECs from each of the following: On-site Solar Systems; Solar Renewable Energy Systems that are not On-site Solar Systems; and non-solar Renewable Energy;

- (F) Standard Rebate Offer and the QRU's estimate of the Eligible Renewable Energy that will be acquired under the Standard Rebate Offer;
 - (G) Plan to acquire the additional Eligible Renewable Energy, including the QRU's use of competitive acquisitions to obtain the additional solar Eligible Renewable Energy it needs to meet the Renewable Energy Standard;
 - (H) The proposed Request for Proposal including any standard contracts to be included with the acquisition for all Eligible Renewable Energy that the QRU plans to acquire by competitive acquisition; and
 - (I) Proposed ownership investment, if any, in Eligible Renewable Energy Resources and estimate of whether its investment will provide net economic benefits to the QRU's customers, entitling the QRU to extra profit on its investment, pursuant to Rule 3660.
- (II) The competitive acquisition process for renewable energy resources, pursuant to Rule 3655;
 - (III) The determination of minimizing environmental impacts from renewable energy resource, pursuant to Rule 3656;
 - (III) The establishment of the initial level and adjustments to the Standard Rebate Offer for solar electric generation resources, pursuant to Rule 3658;
 - (IV) The treatment, tracking, and trading of RECs, pursuant to Rule 3659;
 - (V) The establishment of a cost recovery mechanism, pursuant to Rule 3660;
 - (VI) The net metering for renewable energy resources, pursuant to Rule 3664;
 - (VII) The interconnection of renewable energy resources, pursuant to Rule 3665; and
 - (VIII) Twenty-year contracts for both the electricity generated from eligible renewable energy systems and RECs.
- (b) The Commission shall either approve the QRU's Compliance Plan or order modifications to the Compliance Plan. QRU actions consistent with an approved compliance plan will be presumed prudent.
 - (c) The QRU may apply to the Commission at any time for approval of amendments to an approved Compliance Plan.

3658. Standard Rebate Offer

- (a) Each QRU shall make available to its retail electricity customers a Standard Rebate Offer of \$2.00 per watt for On-Site Solar Systems, up to a maximum of 100 kW per system, that become operational on or after December 1, 2004. Any SO-RECs acquired by the QRU pursuant to such SRO program, regardless of whether the associated Renewable Energy is specifically metered or

contractually specified without specific metering, may be counted by the QRU for purposes of compliance with the Renewable Energy Standard.

- (b) On or before March 31, 2006, each QRU shall make a one-time offer to purchase, under a Renewable Energy Credit Contract, the SO-RECs associated with On-site Solar Systems, up to a maximum of 10 kW per system existing prior to December 1, 2004, and Off-grid On-site Solar Systems, up to a maximum of 10 kW per system. The purchase price offered by the QRU for such SO-RECs shall be no less than the QRU's then current standard offer payment rate for SO-RECs, exclusive of the standard rebate payment, associated with the QRU's Standard Rebate Offer and established pursuant to Rule 3658. Subsequent offers shall be made at the discretion of the QRU. SO-RECs purchased by a QRU pursuant to this rule may be counted for purposes of compliance with the Renewable Energy Standard.
- (c) The Standard Rebate Offer of the QRU shall be set forth at least annually and shall meet the following requirements:
- (I) The QRU need not offer a rebate for an On-site Solar System smaller than 500 watts.
 - (II) The rebate must be made available to all retail utility customers of the QRU on a non-discriminatory, first-come, first-served basis, based upon the date of contract execution.
 - (III) Applicants who are accepted for SRO rebates shall have one year from the date of contract execution to demonstrate substantial completion of their proposed On-site Solar System. Substantial completion means the purchase and installation on the customer's premises of all major system components of the On-site Solar System. Customers who do not achieve substantial completion within one year will not receive a rebate, unless the substantial completion date is extended. When substantial completion of an On-site Solar System has been achieved by an applicant pursuant to this rule the SO-RECs may be counted for purposes of compliance with the Renewable Energy Standard. Within 30 days of substantial completion, the SRO rebate, pursuant to Rule 3658(a), and SO-REC payment, pursuant to Rule 3658(c)(VIII), shall be paid to the applicant.
 - (IV) With the exception of batteries, all On-site Solar Systems eligible for SRO rebates shall be covered by a minimum five-year warranty. Contracts will require customers to maintain the On-site Solar System so that it remains operational for the term of the contract.
 - (V) On-site Solar Systems must consist of equipment that is commercially available and factory new when installed on the original customer's premises to be eligible for the SRO rebate. Rebuilt, used, or refurbished equipment is not eligible to receive the rebate.
 - (VI) Customers may contract to expand their On-site Solar Systems and obtain a rebate for the expanded capacity.
 - (VII) In order to receive the SRO rebate payment, the customer must enter into an agreement with the QRU, with a minimum term of 20 years, that transfers the SO-RECs generated by the On-site Solar System during the term of the agreement from the customer to the QRU.
 - (VIII) For On-site Solar Systems, up to and including 10 kW, that become operational on or after December 1, 2004, the QRU shall offer to make a one-time payment, in addition to the standard rebate payment, for the SO-RECs contracted to be transferred from the customer to the QRU. Any customer that receives the rebate payment and one-time SO-REC payment under this program shall not be entitled to any other compensation for the

SO-RECs contracted to be transferred to the QRU. To facilitate installation of these small systems, all procedures, forms, and requirements shall be clear, simple, and straightforward to minimize the time and effort of homeowners and small businesses.

- (IX) For On-site Solar Systems greater than 10 kW that become operational on or after December 1, 2004, the QRU, in addition to the standard rebate payment, shall offer to pay for the SO-RECs contracted to be transferred from the customer to the QRU. Such SO-RECs and the associated payments shall be determined by the specifically metered Renewable Energy output from the On-site Solar System.
- (X) The customer or its representative shall provide a calculation of the annual expected kilowatt-hour production from the customer's On-Site Solar System. The customer or its representative shall provide the following documentation to back up the customer's calculation:
 - (A) Tilt of the system in degrees (horizontal = 0 degrees);
 - (B) Orientation of the system in degrees (south = 180 degrees);
 - (C) A representation that the orientation of the system is free of trees, buildings and or other obstructions that might shade the system measured from the center point of the solar array through a horizontal angle plus or minus 60 degrees and a through vertical angle between 15 degrees and 90 degrees above the horizontal plane.
 - (D) A calculation of the annual expected kWh of electricity produced by the system. For PV systems, the calculation of annual expected kWh of electricity will be based on the public domain solar calculator PVWatts Version 1 (or equivalent upgrade).
 - (i) The weather station that is either nearest to or most similar in weather to the installation site;
 - (ii) The System Output rating which equals the module rating times the inverter efficiency times the number of modules;
 - (iii) Array Type: fixed tilt, single axis tracking, or 2 axis tracking; For variable tilt systems, the PVWatts calculations can be run multiple times corresponding to the number of times per year that the system tilt is expected to be changed using those months corresponding to the specific tilt angle used;
 - (iv) Array Tilt (degrees); and
 - (v) Array Azimuth (degrees).
 - (E) In the event PVWatts is no longer available, an equivalent tool shall be established.
 - (F) For On-Site Solar Systems up to and including 10 kW, the REC payment may be adjusted, either up or down, based on the calculation of expected kWh of electric output derived from Rule 3658(X)(D) as compared with an optimally oriented fixed, i.e. non-tracking, system at the customer's location, but only if the

calculated system output differs from the optimally oriented system output by more than 10%.

- (XI) The level of SO-REC payments for systems of 10 kW and smaller offered in connection with a QRU's SRO program may be adjusted from time to time as needed to achieve compliance with the Renewable Energy Standard.
- (XII) The On-site Solar System installed must remain in place on the customer's premises for the duration of its useful life. The customer's equipment must have electrical connections in accordance with industry practice for permanently installed equipment, and it must be secured to a permanent surface (e.g. foundation, roof, etc.). Any indication of portability, including, but not limited to, wheels, carrying handles, dolly, trailer or platform, will render the system ineligible for participation and payments under the SRO program.

3659. Renewable Energy Credits

- (a) Renewable Energy Credits will be used to comply with the renewable energy standard. Eligible RECs acquired through a system of tradable renewable energy credits may be used by QRUs to comply with this standard. In calculating compliance, the total RECs acquired from renewable energy systems during a compliance year may include:
 - (I) RECs generated by the QRU or by a QRU affiliated renewable energy system;
 - (II) RECs acquired by the QRU pursuant to renewable energy contracts;
 - (III) RECs acquired by the QRU pursuant to renewable energy credit contracts;
 - (IV) RECs acquired by the QRU pursuant to a standing offer program;
 - (V) RECs carried forward from previous compliance years, as authorized by the Commission;
 - (VI) RECs borrowed forward from previous compliance years, pursuant to Rule 3654(f).
- (b) RECs representing electricity generated at renewable energy facilities located in the state of Colorado shall be counted as 1.25 the kilowatt-hours for the purpose of compliance with Rule 3654.
- (c) All contracts between QRUs and the owners of renewable energy facilities entered into after the effective day of these rules shall clearly specify the entity who shall own the RECs associated with the renewable energy facility.
- (d) The eligibility for compliance of an Eligible Renewable Energy Credit shall expire at the end of the fifth calendar year following the calendar year during which it was generated.
- (e) Eligible renewable energy credits that are generated on or after January 1, 2004 may be counted for compliance with this Renewable Energy Standard.
- (f) RECs shall be used for a single purpose only, and shall expire or be retired upon use for that purpose. All Eligible Renewable Energy Credits utilized by the QRU to comply with the renewable energy standard:
 - (I) May not be sold or otherwise exchanged with any other party, or in any other state or jurisdiction;

- (II) May not be included within a blended energy product certified to include a fixed percentage of renewable energy in any other state or jurisdiction;
 - (III) May not be used in conjunction with commercial environmental or renewable offers unless otherwise authorized by the Commission; and
 - (IV) May be counted simultaneously toward compliance with a federal renewable portfolio standard and with the Renewable Energy Standard.
- (g) RECs that are generated with fuel cell energy using hydrogen derived from an Eligible Renewable Energy Resource are eligible for compliance purposes only to the extent that the energy used to generate the hydrogen did not create renewable energy credits used for any of the purposes identified in Rule 3659 (f).
- (h) If a renewable energy system uses an Eligible Renewable Energy Resource in combination with a non-eligible energy source to generate electricity, only the RECs associated with the proportion of the total electric output of the renewable energy system that results from the use of Eligible Renewable Energy Resources shall be eligible to count toward compliance with the renewable energy standard. To be eligible under the conditions of this renewable energy system the system must be designed to produce either more than 1% of the system electrical output from renewable sources or more than 100 RECs per year.
- (i) The QRU shall establish a methodology for determining the appropriate amount of RECs generated by co-fired systems.
- (j) A QRU:
- (I) Shall develop an auditable process to account for RECs using a central database. In the absence of a central third-party database, the QRU shall maintain its own REC internal database and shall make an extract of the REC information available on the utility's website.
 - (II) Shall designate within its database any REC sold to a wholesaler if the REC has been assigned to that wholesaler.
 - (III) Shall apply for the inclusion of any losses or gains from the purchase or sale of RECs in the utility's next applicable rate proceeding.
- (k) The QRU shall record REC information from eligible renewable energy systems in a central database. The database shall include, but not be limited to, a list of all registered eligible renewable energy systems, including their type, location, owner, operator, start of operation, projected and actual REC generation, ownership, transfer and retirement. A summary database shall be provided to the Commission Staff and be publicly viewable via the Commission's worldwide web. Owners of registered eligible renewable energy systems may, at their option, have their name and address encoded for privacy. Systems that are encoded for privacy shall have a unique identifying number assigned, and will continue to have the zip code reported.
- (l) In conjunction with the QRU Compliance plans specified in Rule 3657, a QRU may make a request that the Commission allow the use of a central third-party database to account for RECs. If a QRU proposes to use a central third-party database for the accounting of RECs, the QRU must show that the central third-party database can be readily audited by the Commission Staff to verify that the renewable energy standard is met and that the alternative system is cost effective.

3660. Cost Recovery

- (a) The QRU shall be entitled to timely cost recovery through retail rate mechanisms for all funds prudently expended to comply with these rules, including the costs the QRU incurs to administer the Standard Rebate Offer and the acquisitions of Eligible Renewable Energy Resources. The QRU shall be entitled to recover its investment and expenses associated with these rules through appropriate adjustment clauses that allow recovery of expenditures without the full resetting of electric rates; provided, however, that costs recovered through these adjustment clauses that are usually recovered through base rates are incorporated into the QRU's base rates at the QRU's next general rate case.
- (b) In advance of the approval of the first Compliance Plan, a QRU may propose, by application, to implement a forward-looking cost recovery mechanism to provide funding for implementing the Renewable Energy Standard. In its application, the QRU must demonstrate that the funding mechanism proposed will not exceed the retail rate impact test. If approved, the forward-looking funding mechanism may be implemented prior to the first Compliance Year. Each QRU with a forward-looking cost recovery mechanism shall separately identify the forward-looking cost recovery mechanism on its customers' bills.
 - (l) Interest shall accrue on the unexpended balance of funds collected from a forward-looking rider. The interest rate shall be at the Commission's customer deposit interest rate at the time of the rider. A QRU may request interest on any funds it expends in excess of those collected through the forward-looking rider. The request for interest on excess expenditures shall include the reason(s) for the excess expenditures. The request for interest shall be included as part of the Annual Compliance Report, pursuant to Rule 3662.
- (c) If the QRU incurs costs in acquiring Eligible Renewable Energy to meet the Renewable Energy Standard that exceed the maximum retail rate impact, the QRU shall be entitled to carry forward these costs to a future year for cost recovery. These carried forward amounts shall be used to reduce the next year's expendable amount as provided under the Retail Rate Impact rule.
- (d) The QRU shall be entitled to earn an extra profit on the QRU's ownership investment in a specific Eligible Renewable Energy Resource if that Eligible Renewable Energy Resource provides net economic benefits to customers. For these investments, the QRU shall be entitled to a return equal to the QRU's most recent authorized rate of return on rate base plus a bonus limited to 50% of the net economic benefit as long as the QRU is in compliance with these rules implementing the Renewable Energy Standard. If the QRU's investment in a specific Eligible Renewable Energy Resource does not provide a net economic benefit to customers, the QRU shall be entitled to a return equal to the QRU's most recent authorized rate of return on rate base.
 - (l) For the purposes of this Rule 3660, net economic benefit shall mean that the specific Eligible Renewable Energy Resource in which the QRU has made an ownership investment results in an average retail rate impact less than the rate impact that would have resulted from the acquisition of the alternative Eligible Renewable Energy Resource meeting the same component of the Renewable Energy Standard that would have been selected absent the QRU's investment. The QRU shall set forth its calculation of the proposed net economic benefit either at the time of a compliance plan filing, an Annual Compliance Report filing, a QRU rate filing or by application. The Commission shall determine the level of the net economic benefit and the level of the bonus after review of the utility's filing. The Commission may set the matter for hearing if appropriate under the Commission's Rules of Practice and Procedure.

- (II) To the extent that a QRU uses computer modeling in its analysis of net economic benefit, the QRU shall use the same methodologies and assumptions it used in its most recently approved Least-Cost Planning case. All modeling inputs, methodologies and assumptions, except for unsuccessful bid price information, shall be available for all parties to review subject to the Commission's standard confidentiality provisions.
 - (III) Any net economic benefit for which the QRU qualifies to receive shall be included in the calculation of the Retail Rate Impact rule.
- (e) The utility is entitled to recover through rates, its prudently incurred expenditures. While not the exclusive method for establishing prudence, if the Commission approves a Renewable Energy Supply Contract or a Renewable Energy Credit Contract, the expenditures of the QRU under the contract shall be deemed to be prudent expenditures. The QRU may apply to the Commission, at any time, for review and approval of Renewable Energy Supply Contracts and Renewable Energy Credit Contracts. The Commission will review and rule on these contracts within sixty days of their filing. The Commission may set the contract for expedited hearing, if appropriate, under the Commission's Rules of Practice and Procedure. If the QRU enters into a Renewable Energy Supply Contract or a Renewable Energy Credit Contract in a form substantially similar to the form of contract approved by the Commission as part of the QRU's compliance plan, that contract shall be deemed approved by the Commission under this rule.
 - (f) If the QRU recovers fuel and purchased energy expense through an incentive adjustment clause, the QRU shall not receive a benefit from the incentive adjustment clause for the energy generated from QRU-owned Eligible Renewable Energy Resources, but the QRU shall be entitled to recover all the fuel and purchased energy costs associated with the Eligible Renewable Energy Resource.

3661. Retail Rate Impact

- (a) The net rate impact of actions taken by a QRU to comply with the Renewable Energy Standard shall not exceed one percent of the total electric bill annually for each customer of that QRU.
- (b) The net rate impact shall include the prudently incurred direct and indirect costs of all actions by a QRU to meet the Renewable Energy Standard, including, but not limited to, program administration, rebates and performance-based incentives, payments under Renewable Energy Supply Contracts, payments under Renewable Energy Credit Contracts, computer modeling and analysis time, and QRU investment in Eligible Renewable Energy Resources. The retail rate impact shall be determined net of new nonrenewable alternative sources of electricity supply reasonably available at the time of the determination.
- (c) In its Compliance Plan filed under Rule 3657, the QRU shall estimate the retail rate impact of its plans to comply with the Renewable Energy Standard over the upcoming Compliance Year and shall submit a report detailing the development of the retail rate impact estimate. The Compliance Plan shall identify the funds that need to be made available to the QRU to comply with the Renewable Energy Standard and the Retail Rate Impact rule. By approving the QRU's Compliance Plan, the Commission will be approving the QRU's budget for acquiring Eligible Renewable Energy over the Compliance Year. Once approved by the Commission, the QRU shall implement its Compliance Plan. Actions taken by a QRU in compliance with the filed and approved Compliance Plan shall be deemed prudent. The basic method for performing the estimate of the retail rate impact limit is as follows:
 - (I) For the purposes of calculating the retail rate impact, the QRU shall determine all resources available to the QRU, either through ownership or by contract, at the time of the beginning of the Compliance Year and for a minimum of the ten years thereafter (the

“RES Planning Period”). The projected costs of these available resources shall be reflected in both of the scenarios analyzed by the QRU’s computer planning models under this paragraph. The QRU shall determine the QRU’s capacity and energy requirements over the RES Planning Period. The QRU shall develop two scenarios to estimate the resource composition of the QRU’s future electric system and the cost of that system over the RES Planning Period. The first scenario, a Renewable Energy Standard Plan or “RES Plan” should reflect the QRU’s plans and actions to acquire Eligible Renewable Energy to meet the Renewable Energy Standard. The second scenario, a “No RES Plan” should reflect the QRU’s resource plan that meets the QRU’s capacity and energy requirements over the RES Planning Period by replacing new Eligible Renewable Energy Resources with new nonrenewable resources reasonably available.

- (II) The QRU shall use the comparison of the two model runs along with any additional analysis needed to calculate the estimated annual net retail rate impact. The maximum retail rate impact shall not exceed one percent of the total retail bill annually for each customer. To the extent the RES Plan exceeds this maximum retail rate impact, the QRU shall modify the RES Plan to limit the acquisition of Eligible Renewable Energy so that the QRU Compliance Plan does not exceed the maximum retail rate impact.
- d) The QRU can use an alternate method to determine the estimate of the retail rate impact. The alternative method can be used for those RES Planning Period years when: 1) the capacity and energy requirements have already been met and included in the QRU’s approved Electric Least-Cost Resource Plan; and 2) when the only remaining portion of the Renewable Energy Standard for which the QRU needs to comply with is Solar Electric Generating Technologies.
- (I) The retail rate impact will be determined by using the estimated costs of the proposed Solar Electric Generating Technologies less the estimated annual average costs of energy of existing resources that would be replaced with energy generated by the proposed Solar Electric Generating Technologies.
 - (II) The QRU will then convert this net cost figure into a percent of total electric bill annually for each customer. In no event shall the percent of total electric bill annually exceed one percent for each customer. To the extent that the net cost figure results in the QRU exceeding the one percent for each customer threshold, the QRU shall modify its acquisition of Solar Electric Generating Technologies in order to not exceed the maximum retail rate impact.
- (e) For purposes of calculating the retail rate impact, the QRU shall use the same methodologies and assumptions it used in its most recently approved Least-Cost Planning case. All modeling inputs, methodologies and assumptions, except for unsuccessful bid price information, shall be available for all parties to review subject to the Commission’s standard confidentiality provisions.
- (f) For purposes of calculating the retail rate impact, new Eligible Renewable Energy Resources means Eligible Renewable Energy Resources of the QRU, which are not currently operational.
- (g) The administrative costs of a QRU to implement these rules is capped at ten percent per year of the total annual collection. A QRU may include in its Compliance Plan a waiver request of this rule during the initial ramp-up stage of the QRU’s program.
- (h) If a wholesale customer agrees to pay the full costs associated with the acquisition of renewable resources and associated renewable energy credits by its wholesale provider, the wholesale customer shall be entitled to receive the appropriate credit toward the renewable energy standard as well as any associated renewable energy credits. To the extent that the full costs are not

recovered from wholesale customers, a qualifying retail utility shall be entitled to recover those costs from retail customers.

3662. Annual Compliance Report

- (a) Beginning in 2007, the QRU shall file an Annual Compliance Report on June 1 to report on the status of the QRU's compliance with the Renewable Energy Standard. The Annual Compliance Report shall provide the following information for the most recently completed Compliance Year:
- (I) The total megawatt-hours sold by the QRU to its retail customers in Colorado and the associated Eligible Renewable Energy required for compliance with each component of the Renewable Energy Standard. The QRU shall separately identify amounts of megawatt-hours sold by each type of resource;
 - (II) The total amount and source of Eligible Renewable Energy acquired by the QRU during the Compliance Year for each component of the Renewable Energy Standard. The QRU shall separately identify amounts of Eligible Renewable Energy by each type of resource;
 - (III) The total amount of Eligible Renewable Energy borrowed forward, pursuant to Rule 3654(f), in previous Compliance Years that was made up during the Compliance Year to achieve compliance with each component of the Renewable Energy Standard;
 - (IV) The total amount of Eligible Renewable Energy borrowed forward, pursuant to Rule 3654(f), from future Compliance Years to achieve compliance with each component of the Renewable Energy Standard in the Compliance Year;
 - (V) The total amount and source of Eligible Renewable Energy the QRU is carrying back from the year following the Compliance Year under Rule 3654(d)(I) to achieve compliance with each component of the Renewable Energy Standard in the Compliance Year;
 - (VI) The total amount of Eligible Renewable Energy the QRU has carried forward from prior calendar years under Rule 3654(d)(III) to apply in the Compliance Year for each component of the Renewable Energy Standard.
 - (VI) The total amount of Eligible Renewable Energy the QRU has acquired in the Compliance Year that the QRU proposes to carry forward under Rule 3654(d)(III) to future years for each component of the Renewable Energy Standard;
 - (VIII) The total amount of Eligible Renewable Energy the QRU has counted toward compliance with each component of the Renewable Energy Standard in the Compliance Year. The QRU shall separately identify amounts of Eligible Renewable Energy by each type of resource;
 - (IX) The total amount of Renewable Energy or RECs acquired by the QRU during the Compliance Year. The QRU shall separately identify REC amounts by each type of resource;
 - (X) Whether the QRU has invested in any Eligible Renewable Energy Resource and whether that resource is under construction or in operation; and
 - (XI) The funds expended and the retail rate impact of the Eligible Renewable Energy acquired.

- (b) In the Annual Compliance Report, the QRU must explain whether it achieved compliance with its Renewable Energy Standard for each of the components during the current Compliance Year, or explain why the QRU had difficulty meeting the Renewable Energy Standard.
- (c) If, in its Annual Compliance Report, the QRU did not comply with its Renewable Energy Standard for each of the RES components as a direct result of absolute limitations within a requirements contract from a wholesale electric supplier, then the QRU must explain whether it acquired a sufficient amount of either eligible RECs or documented and verified energy savings through energy efficiency and/or conservation programs, or both to rectify the noncompliance so as to excuse the QRU from any administrative fine or other administrative action.
- (d) On the same date that the QRU files its Annual Compliance Report, the QRU shall post an electronic copy of its Annual Compliance Report excluding confidential material on its website to facilitate public access and review.
- (e) On the same date that the QRU files its Annual Compliance Report, it shall provide the Commission with an electronic copy of its Annual Compliance Report excluding confidential material. The Commission may place the non-confidential portion of each QRU's Annual Compliance Report on the Commission's website in order to facilitate public review.

3663. Compliance Report Review

- (a) Compliance Reporting
 - (I) In the Annual Compliance Report, the QRU must explain whether it complied with its Renewable Energy Standard for the solar, on-site solar and non-solar components during the most recently completed Compliance Year.
 - (II) Upon receipt of the QRU Annual Compliance Report, the Commission will provide notice to interested persons. Interested persons will have 30 days within which to provide comment to the Commission on the content of the Annual Compliance Report. The QRU shall have the opportunity to reply to all comments on or before 45 days following the filing of the Annual Compliance Report.
 - (III) The Staff of the Commission shall review the annual compliance report and any comments received and within 60 days of the filing of the Annual Compliance Report make a recommendation to the Commission as to whether the QRU has met the Renewable Energy Standard and no action should be taken by the Commission, whether any changes are needed to the compliance report, or whether a hearing is necessary.
 - (IV) Upon review of the QRU's Annual Compliance Report, the Staff recommendation and all comments filed, the Commission will issue an order stating whether the QRU complied with the components of its Renewable Energy Standard during the most recently completed Compliance Year.
 - (V) If the Commission determines that the total number of RECs which the QRU generated or acquired from renewable energy systems during the most recently completed Compliance Year exceeded the total number of RECs which the QRU needed to comply with each component of its Renewable Energy Standard for the recently completed Compliance Year:
 - (A) The Commission will state in its order the number of excess solar, on-site solar and/or non-solar RECs which the QRU has available to carry forward from that Compliance Year or use for any other legal purpose.

- (B) The QRU may use those excess solar, on-site solar and/or non-solar RECs to comply with its Renewable Energy Standard for the five Compliance Years immediately following that Compliance Year.

(b) Compliance Report Hearing

- (I) If the Commission determines that the QRU did not comply with the solar, on-site solar or non-solar components of its Renewable Energy Standard during the most recently completed Compliance Year, the Commission will determine whether the QRU failed to meet the Renewable Energy Standard because of the Retail Rate Impact limit. The Commission will:
 - (A) State in its order the number of RECs by which the QRU failed to comply with each of the solar, on-site solar and non-solar components of its Renewable Energy Standard; and
 - (B) State whether the Commission is satisfied that the failure to meet the Renewable Energy Standard was due to the Retail Rate Impact limit. If the Commission is not satisfied on this issue, the Commission will issue a notice of possible noncompliance and schedule an evidentiary hearing on the matter.
- (II) At the evidentiary hearing, the QRU shall have the burden of proof that it complied with the solar, on-site solar and non-solar components of its Renewable Energy Standard during the most recently completed Compliance Year, or that compliance would have resulted in exceeding the retail rate cap. Such retail rate impact shall include only the direct prudently-incurred costs of acquisition including administration, rebates and performance-based incentives, and shall consider the offsetting benefits of renewable electricity utilized to comply with the standard including the costs that are avoided by the renewable energy systems.

(c) Compliance Penalties

- (I) If after notice and possible non-compliance report hearing, the Commission has discretion to determine that the QRU did not fully comply with any of the solar, on-site solar and non-solar components of its Renewable Energy Standard during the most recently completed Compliance Year or if the Commission determines that the QRU did not comply with any other provisions of the rules, the Commission shall take the following actions:
 - (A) Determine for each component for which there was noncompliance the cost that would have been incurred by the QRU to fully comply with such component standard through the acquisition of RECs and issue an order requiring the QRU to issue bill credits in such amounts to retail customers.
 - (B) Assess no administrative penalties against a QRU if the amount of the shortfall is attributable to the Retail Rate Impact limit.
 - (C) The Commission may also take other administrative action including imposition of administrative penalties against the QRU.
- (II) The cost of such bill credits or penalties shall not be recovered from retail customers through the QRU's rates.

3664. Net Metering

- (a) All QRUs shall allow the customer's retail electricity consumption to be offset by the electricity generated from Eligible Renewable Energy Resources on the customer's side of the meter that are interconnected with the QRU, provided that the generating capacity of the customer's facility meets the following two criteria:
 - (I) The rated capacity of the generator does not exceed 2000 kW; and
 - (II) The rated capacity of the generator does not exceed the customer's service entrance capacity.
- (b) If a customer with an Eligible Renewable Energy Resource generates Renewable Energy pursuant to subsection (a) of Rule 3664 in excess of the customer's consumption, the excess kilowatt-hours shall be carried forward from month to month and credited at a ratio of 1:1 against the customer's retail kilowatt-hour consumption in subsequent months. Within 60 days of the end of each calendar year, or within 60 days of when the customer terminates its retail service, the QRU shall compensate the customer for any accrued excess kilowatt-hour credits, at the QRU's average hourly incremental cost of electricity supply over the most recent calendar year.
- (c) The QRU shall file tariffs that comply with these rules within 30 days of the effective date of these rules.
- (d) A customer's facility that generates Renewable Energy from an Eligible Renewable Energy Resource shall be equipped with metering equipment that can measure the flow of electric energy in both directions. The QRU shall utilize a single bi-directional electric revenue meter.
- (e) If the customer's existing electric revenue meter does not meet the requirements of these rules, the QRU shall install and maintain a new revenue meter for the customer, at the company's expense. Any subsequent revenue meter change necessitated by the customer shall be paid for by the customer.
- (f) The QRU shall not require more than one meter per customer to comply with this Rule 3664. Nothing in this Rule 3664 shall preclude the QRU from placing a second meter to measure the output of a Solar Renewable Energy System for the counting of RECs subject to the following conditions:
 - (I) For customer facilities over 10 kW, a second meter shall be required to measure the Solar Renewable Energy System output for the counting of RECs.
 - (II) For systems 10 kW and smaller, an additional meter may be installed under either of the following circumstances:
 - (A) The QRU may install an additional production meter on the Solar Renewable Energy System output at its own expense if the customer consents; or
 - (B) The customer may request that the QRU install a production meter on the Solar Renewable Energy System output in addition to the revenue meter at the customer's expense.
- (g) A QRU shall provide net metering service at non-discriminatory rates to customers with Eligible Renewable Energy Resources. A customer shall not be required to change the rate under which the customer received retail service in order for the customer to install an eligible renewable

energy resource. Nothing in this rule shall prohibit a QRU from requesting changes in rates at any time.

3665. Interconnection

NOTE: The following rule is numbered using the FERC's numbering convention and not the Colorado Commission's numbering convention. This rule largely tracks FERC Order 2006.

Small Generator Interconnection Procedures (SGIP)

The following Small Generator Interconnection Procedures (SGIP) shall apply to all small generation resources including Eligible Renewable Energy Resources connected to the utility. Each utility shall also provide, on their web site, interconnection standards not included in these procedures.

(a) General Overview

(i) Applicability

- (1) A request to interconnect a certified Small Generating Facility no larger than 2 MW shall be evaluated under the Level 2 Process. A request to interconnect a certified inverter-based Small Generating Facility no larger than 10 kW shall be evaluated under the Level 1 Process. A request to interconnect a Small Generating Facility larger than 2 MW but no larger than 10 MW or a Small Generating Facility that does not pass the Level 1 or Level 2 Process, shall be evaluated under the Level 3 Process.
- (2) Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1 of the body of these procedures.
- (3) Prior to submitting its Interconnection Request, the Interconnection Customer may ask the utility interconnection contact employee or office whether the proposed interconnection is subject to these procedures. The utility shall respond within 15 Business Days.
- (4) Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. The Commission expects all utilities, market participants, and Interconnection Customers interconnected with electric systems to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for electric system infrastructure and operational security, including physical, operational, and cyber-security practices.
- (5) References in these procedures to interconnection agreement are to the Small Generator Interconnection Agreement (SGIA).

(ii) Pre-Application

The utility shall designate an employee or office from which information on the application process and on an Affected System can be obtained through informal requests from the Interconnection Customer presenting a proposed project for a specific site. The name, telephone number, and e-mail address of such contact employee or office shall be made available on the utility's Internet web site. Electric system information for specific locations, feeders, or small areas shall be provided to the Interconnection Customer upon request and may include relevant system studies, interconnection studies, and other

materials useful to an understanding of an interconnection at a particular point on the utility's System, to the extent such provision does not violate confidentiality provisions of prior agreements or critical infrastructure requirements. The utility shall comply with reasonable requests for such information unless such information is proprietary or confidential and cannot be provided pursuant to a confidentiality agreement.

- (iii) **Interconnection Request**
The Interconnection Customer (IC) shall submit its Interconnection Request to the utility, together with the processing fee or deposit specified in the Interconnection Request. The Interconnection Request shall be date- and time-stamped upon receipt. The original date- and time-stamp applied to the Interconnection Request at the time of its original submission shall be accepted as the qualifying date- and time-stamp for the purposes of any timetable in these procedures. The Interconnection Customer shall be notified of receipt by the utility within three Business Days of receiving the Interconnection Request which notification may be to an e-mail address or fax number provided by IC. The utility shall notify the Interconnection Customer within ten Business Days of the receipt of the Interconnection Request as to whether the Interconnection Request is complete or incomplete. If the Interconnection Request is incomplete, the utility shall provide, along with the notice that the Interconnection Request is incomplete, a written list detailing all information that must be provided to complete the Interconnection Request. The Interconnection Customer will have ten Business Days after receipt of the notice to submit the listed information or to request an extension of time to provide such information. If the Interconnection Customer does not provide the listed information or a request for an extension of time within the deadline, the Interconnection Request will be deemed withdrawn. An Interconnection Request will be deemed complete upon submission of the listed information to the utility.
- (iv) **Modification of the Interconnection Request**
Any modification to machine data or equipment configuration or to the interconnection site of the Small Generating Facility not agreed to in writing by the utility and the Interconnection Customer may be deemed a withdrawal of the Interconnection Request and may require submission of a new Interconnection Request, unless proper notification of each Party by the other and a reasonable time to cure the problems created by the changes are undertaken.
- (v) **Site Control Documentation of site control must be submitted with the Interconnection Request. Site control may be demonstrated through:**
 - (1) Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Small Generating Facility;
 - (2) An option to purchase or acquire a leasehold site for such purpose; or
 - (3) An exclusivity or other business relationship between the Interconnection Customer and the entity having the right to sell, lease, or grant the Interconnection Customer the right to possess or occupy a site for such purpose.
- (vi) **Queue Position**
The utility shall place Interconnection Requests in a first come, first served order per feeder and per substation based upon the date- and time-stamp of the Interconnection Request. The order of each Interconnection Request will be used to determine the cost responsibility for the Upgrades necessary to accommodate the interconnection. At the utility's option, Interconnection Requests may be studied serially or in clusters for the purpose of the system impact study.

(b) Level 2 - Fast Track Process

(i) Applicability

The Fast Track Process is available to an Interconnection Customer proposing to interconnect its Small Generating Facility with the utility's System if the Small Generating Facility is no larger than 2 MW and if the Interconnection Customer's proposed Small Generating Facility meets the codes, standards, and certification requirements of Attachments 3 and 4 of these procedures.

(ii) Initial Review

Within 15 Business Days after the utility notifies the Interconnection Customer it has received a complete Interconnection Request, the utility shall perform an initial review using the screens set forth below, shall notify the Interconnection Customer of the results, and include with the notification copies of the analysis and data underlying the utility's determinations under the screens.

(1) Screens

- A. The proposed Small Generating Facility's Point of Interconnection must be on a portion of the utility's Distribution System that is subject to the Tariff.
- B. For interconnection of a proposed Small Generating Facility to a radial distribution circuit, the aggregated generation, including the proposed Small Generating Facility, on the circuit shall not exceed 15 % of the line section's annual peak load as most recently measured at the substation or calculated for the line segment. A line section is that portion of a utility's electric system connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line.
- C. The proposed Small Generating Facility, in aggregation with other generation on the distribution circuit, shall not contribute more than 10 % to the distribution circuit's maximum fault current at the point on the distribution feeder voltage (primary) level nearest the proposed point of change of ownership.
- D. The proposed Small Generating Facility, in aggregate with other generation on the distribution circuit, shall not cause any distribution protective devices and equipment (including, but not limited to, substation breakers, fuse cutouts, and line reclosers), or Interconnection Customer equipment on the system to exceed 87.5 % of the short circuit interrupting capability; nor shall the interconnection be proposed for a circuit that already exceeds 87.5 % of the short circuit interrupting capability.
- E. Using the table below, determine the type of interconnection to a primary distribution line. This screen includes a review of the type of electrical service provided to the Interconnecting Customer, including line configuration and the transformer connection to limit the potential for creating over-voltages on the utility's electric power system due to a loss of ground during the operating time of any anti-islanding function.

Primary Distribution Line Type	Type of Interconnection to Primary Distribution Line	Result/Criteria
Three-phase, three wire	3-phase or single phase, phase-to-phase	Pass screen
Three-phase, four wire	Effectively-grounded 3 phase or Single-phase, line-to-neutral	Pass screen

- F. If the proposed Small Generating Facility is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed Small Generating Facility, shall not exceed 20 kW.

- G. If the proposed Small Generating Facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition shall not create an imbalance between the two sides of the 240 volt service of more than 20 % of the nameplate rating of the service transformer.

- H. No construction of facilities by the utility on its own system shall be required to accommodate the Small Generating Facility.

- I. Interconnections to Distribution Networks
 - 1) For interconnection of a proposed Small Generating Facility to the load side of spot network protectors serving more than a single customer, the proposed Small Generating Facility must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the smaller of 5 % of a spot network's maximum load or 300 kW. For spot networks serving a single customer, the Small Generator Facility must use inverter-based equipment package and either meet the requirements above or shall use a protection scheme or operate the generator so as not to exceed on-site load or otherwise prevent nuisance operation of the spot network protectors.

 - 2) For interconnection of a proposed Small Generating Facility to the load side of area network protectors, the proposed Small Generating Facility must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the smaller of 10% of an area network's minimum load or 500 kW.

 - 3) Notwithstanding sub-sections (1) or (2) above, each utility may incorporate into its interconnection standards, any change in interconnection guidelines related to networks pursuant to standards developed under IEEE P1547 for interconnections to networks. To the extent the new IEEE standards conflict with these existing guidelines, the new standards shall apply. In addition, and with the consent of the utility, a Small Generator Facility may be interconnected to a spot or area network

provided the Facility utilizes a protection scheme that will prevent any power export from the customer's site including inadvertent export under fault conditions or otherwise prevent nuisance operation of the network protectors.

- (2) If the proposed interconnection passes the screens, the Interconnection Request shall be approved and the utility will provide the Interconnection Customer an executable interconnection agreement within five Business Days after the determination.
 - (3) If the proposed interconnection fails the screens, but the utility determines that the Small Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the utility shall provide the Interconnection Customer an executable interconnection agreement within five Business Days after the determination.
 - (4) If the proposed interconnection fails the screens, but the utility does not or cannot determine from the initial review that the Small Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards unless the Interconnection Customer is willing to consider minor modifications or further study, the utility shall provide the Interconnection Customer with the opportunity to attend a customer options meeting.
 - (5) **Customer Options Meeting**
If the utility determines the Interconnection Request cannot be approved without minor modifications at minimal cost; or a supplemental study or other additional studies or actions; or at significant cost to address safety, reliability, or power quality problems, within the five Business Day period after the determination, the utility shall notify the Interconnection Customer and provide copies of the data and analyses underlying its conclusion. Within ten Business Days of the utility's determination, the utility shall offer to convene a customer options meeting with the utility to review possible Interconnection Customer facility modifications or the screen analysis and related results, to determine what further steps are needed to permit the Small Generating Facility to be connected safely and reliably. At the time of notification of the utility's determination, or at the customer options meeting, the utility shall:
 - A. Offer to perform facility modifications or minor modifications to the utility's electric system (e.g., changing meters, fuses, relay settings) and provide a non-binding good faith estimate of the limited cost to make such modifications to the utility's electric system; or
 - B. Offer to perform a supplemental review if the utility concludes that the supplemental review might determine that the Small Generating Facility could continue to qualify for interconnection pursuant to the Fast Track Process, and provide a non-binding good faith estimate of the costs and time of such review; or
 - C. Obtain the Interconnection Customer's agreement to continue evaluating the Interconnection Request under the Level 3 Study Process.
- (iii) **Supplemental Review**
If the Interconnection Customer agrees to a supplemental review, the Interconnection Customer shall agree in writing within 15 Business Days of the offer, and submit a

deposit for the estimated costs provided in (iii) (1) (B). The Interconnection Customer shall be responsible for the utility's actual costs for conducting the supplemental review. The Interconnection Customer must pay any review costs that exceed the deposit within 20 Business Days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced costs, the utility will return such excess within 20 Business Days of the invoice without interest.

- (1) Within ten Business Days following receipt of the deposit for a supplemental review, the utility will determine if the Small Generating Facility can be interconnected safely and reliably.
 - A. If so, the utility shall forward an executable interconnection agreement to the Interconnection Customer within five Business Days.
 - B. If so, and Interconnection Customer facility modifications are required to allow the Small Generating Facility to be interconnected consistent with safety, reliability, and power quality standards under these procedures, the utility shall forward an executable interconnection agreement to the Interconnection Customer within five Business Days after confirmation that the Interconnection Customer has agreed to make the necessary changes at the Interconnection Customer's cost.
 - C. If so, and minor modifications to the utility's electric system are required to allow the Small Generating Facility to be interconnected consistent with safety, reliability, and power quality standards under the Level 2 Fast Track Process, the utility shall forward an executable interconnection agreement to the Interconnection Customer within ten Business Days that requires the Interconnection Customer to pay the costs of such system modifications prior to interconnection.
 - D. If not, the Interconnection Request will continue to be evaluated under the Level 3 Study Process.

(c) Level 3 - Study Process

- (j) **Applicability**
The Study Process shall be used by an Interconnection Customer proposing to interconnect its Small Generating Facility with the utility's System if the Small Generating Facility (1) is larger than 2 MW but no larger than 10 MW, (2) is not certified, or (3) is certified but did not pass the Fast Track Process or the 10 kW Inverter Process.
- (ii) **Scoping Meeting**
 - (1) A scoping meeting will be held within ten Business Days after the Interconnection Request is deemed complete, or as otherwise mutually agreed to by the Parties. The utility and the Interconnection Customer will bring to the meeting personnel, including system engineers and other resources as may be reasonably required to accomplish the purpose of the meeting.
 - (2) The purpose of the scoping meeting is to discuss the Interconnection Request. The Parties shall further discuss whether the utility should perform a feasibility study or proceed directly to a system impact study, or a facilities study, or an interconnection agreement. If the Parties agree that a feasibility study should be performed, the utility shall provide the Interconnection Customer, as soon as

possible, but not later than five Business Days after the scoping meeting, a feasibility study agreement (Attachment 6) including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study.

- (3) The scoping meeting may be omitted by mutual agreement. In order to remain in consideration for interconnection, an Interconnection Customer who has requested a feasibility study must return the executed feasibility study agreement within 15 Business Days. If the Parties agree not to perform a feasibility study, the utility shall provide the Interconnection Customer, no later than five Business Days after the scoping meeting, a system impact study agreement (Attachment 7) including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study.
- (4) Feasibility Studies, Scoping Studies, and Facility Studies may be combined for simpler projects by mutual agreement of the utility and the Parties.

(iii) Feasibility Study

- (1) The feasibility study shall identify any potential adverse system impacts that would result from the interconnection of the Small Generating Facility.
- (2) A deposit of the lesser of 50 percent of the good faith estimated feasibility study costs or earnest money of \$1,000 may be required from the Interconnection Customer.
- (3) The scope of and cost responsibilities for the feasibility study are described in the attached feasibility study agreement.
- (4) If the feasibility study shows no potential for adverse system impacts, the utility shall send the Interconnection Customer a facilities study agreement, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study.
- (5) If the feasibility study shows the potential for adverse system impacts, the review process shall proceed to the appropriate system impact study(s).

(iv) System Impact Study

- (1) A system impact study shall identify and detail the electric system impacts that would result if the proposed Small Generating Facility were interconnected without project modifications or electric system modifications, focusing on the adverse system impacts identified in the feasibility study, or to study potential impacts, including but not limited to those identified in the scoping meeting. A system impact study shall evaluate the impact of the proposed interconnection on the reliability of the electric system.
- (2) If no transmission system impact study is required, but potential electric power Distribution System adverse system impacts are identified in the scoping meeting or shown in the feasibility study, a distribution system impact study must be performed. The utility shall send the Interconnection Customer a distribution system impact study agreement within 15 Business Days of transmittal of the feasibility study report, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, or following the scoping meeting if no feasibility study is to be performed.

- (3) In instances where the feasibility study or the distribution system impact study shows potential for transmission system adverse system impacts, within five Business Days following transmittal of the feasibility study report, the utility shall send the Interconnection Customer a transmission system impact study agreement, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, if such a study is required.
 - (4) If a transmission system impact study is not required, but electric power Distribution System adverse system impacts are shown by the feasibility study to be possible and no distribution system impact study has been conducted, the utility shall send the Interconnection Customer a distribution system impact study agreement.
 - (5) If the feasibility study shows no potential for transmission system or Distribution System adverse system impacts, the utility shall send the Interconnection Customer either a facilities study agreement (Attachment 8), including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, or an executable interconnection agreement, as applicable.
 - (6) In order to remain under consideration for interconnection, the Interconnection Customer must return executed system impact study agreements, if applicable, within 30 Business Days.
 - (7) A deposit of the good faith estimated costs for each system impact study may be required from the Interconnection Customer.
 - (8) The scope of and cost responsibilities for a system impact study are described in the attached system impact study agreement.
 - (9) Where transmission systems and Distribution Systems have separate owners, such as is the case with transmission-dependent utilities ("TDUs") – whether investor-owned or not – the Interconnection Customer may apply to the nearest utility (Transmission Owner, Regional Transmission Operator, or Independent utility) providing transmission service to the TDU to request project coordination. Affected Systems shall participate in the study and provide all information necessary to prepare the study.
- (v) Facilities Study
- (1) Once the required system impact study(s) is completed, a system impact study report shall be prepared and transmitted to the Interconnection Customer along with a facilities study agreement within five Business Days, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the facilities study. In the case where one or both impact studies are determined to be unnecessary, a notice of the fact shall be transmitted to the Interconnection Customer within the same timeframe.
 - (2) In order to remain under consideration for interconnection, or, as appropriate, in the utility's interconnection queue, the Interconnection Customer must return the executed facilities study agreement or a request for an extension of time within 30 Business Days.

- (3) The facilities study shall specify and estimate the cost of the equipment, engineering, procurement, and construction work (including overheads) needed to implement the conclusions of the system impact study(s).
 - (4) Design for any required Interconnection Facilities and/or Upgrades shall be performed under the facilities study agreement. The utility may contract with consultants to perform activities required under the facilities study agreement. The Interconnection Customer and the utility may agree to allow the Interconnection Customer to separately arrange for the design of some of the Interconnection Facilities. In such cases, facilities design will be reviewed and/or modified prior to acceptance by the utility, under the provisions of the facilities study agreement. If the Parties agree to separately arrange for design and construction, and provided security and confidentiality requirements can be met, the utility shall make sufficient information available to the Interconnection Customer in accordance with confidentiality and critical infrastructure requirements to permit the Interconnection Customer to obtain an independent design and cost estimate for any necessary facilities.
 - (5) A deposit of the good faith estimated costs for the facilities study may be required from the Interconnection Customer.
 - (6) The scope of and cost responsibilities for the facilities study are described in the attached facilities study agreement.
 - (7) Upon completion of the facilities study, and with the agreement of the Interconnection Customer to pay for Interconnection Facilities and Upgrades identified in the facilities study, the utility shall provide the Interconnection Customer an executable interconnection agreement within five Business Days.
- (d) Provisions that Apply to All Interconnection Requests
- (i) Reasonable Efforts
The utility shall make reasonable efforts to meet all time frames provided in these procedures unless the utility and the Interconnection Customer agree to a different schedule. If the utility cannot meet a deadline provided herein, it shall notify the Interconnection Customer, explain the reason for the failure to meet the deadline, and provide an estimated time by which it will complete the applicable interconnection procedure in the process.
 - (ii) Disputes
 - (1) The Parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this article.
 - (2) In the event of a dispute, either Party shall provide the other Party with a written Notice of Dispute. Such Notice shall describe in detail the nature of the dispute.
4.2.3 If the dispute has not been resolved within five Business Days after receipt of the Notice, either Party may contact a mutually agreed upon third party dispute resolution service for assistance in resolving the dispute.
 - (3) The dispute resolution service will assist the Parties in either resolving their dispute or in selecting an appropriate dispute resolution venue (e.g., mediation, settlement judge, early neutral evaluation, or technical expert) to assist the Parties in resolving their dispute.

- (4) Each Party agrees to conduct all negotiations in good faith and will be responsible for one-half of any costs paid to neutral third-parties.
 - (5) If neither Party elects to seek assistance from the dispute resolution service, or if the attempted dispute resolution fails, then either Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of this Agreement or it may seek resolution at the Commission.
- (iii) **Interconnection Metering**
Any metering necessitated by the use of the Small Generating Facility shall be installed at the Interconnection Customer's expense in accordance with Commission requirements or the utility's specifications.
- (iv) **Commissioning tests**
Commissioning tests of the Interconnection Customer's installed equipment shall be performed pursuant to applicable codes and standards. The utility must be given at least five Business Days written notice, or as otherwise mutually agreed to by the Parties, of the tests and may be present to witness the commissioning tests.
- (v) **Confidentiality**
- (1) Confidential information shall mean any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential." For purposes of this Agreement, all design, operating specifications, and metering data provided by the Interconnection Customer shall be deemed confidential information regardless of whether it is clearly marked or otherwise designated as such.
 - (2) Confidential Information does not include information previously in the public domain, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce this Agreement. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under this Agreement, or to fulfill legal or regulatory requirements.
 - A. Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information.
 - B. Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.
 - (3) Notwithstanding anything in this article to the contrary, if the Commission, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this Agreement, the Party shall provide the requested information to the Commission, within the time provided for in the request for information. In providing the information to the Commission, the Party may request that the information be

treated as confidential and non-public by the Commission and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party to this Agreement prior to the release of the Confidential Information to the Commission. The Party shall notify the other Party to this Agreement when it is notified by the Commission that a request to release Confidential Information has been received by the Commission, at which time either of the Parties may respond before such information would be made public.

- (vi) **Comparability**
The utility shall receive, process, and analyze all Interconnection Requests in a timely manner as set forth in this document. The utility shall use the same reasonable efforts in processing and analyzing Interconnection Requests from all Interconnection Customers, whether the Small Generating Facility is owned or operated by the utility, its subsidiaries or affiliates, or others.
- (vii) **Record Retention**
The utility shall maintain for three years records, subject to audit, of all Interconnection Requests received under these procedures, the times required to complete Interconnection Request approvals and disapprovals, and justification for the actions taken on the Interconnection Requests.
- (viii) **Interconnection Agreement**
After receiving an interconnection agreement from the utility, the Interconnection Customer shall have 30 Business Days or another mutually agreeable time-frame to sign and return the interconnection agreement, or request that the utility file an unexecuted interconnection agreement with the Commission. If the Interconnection Customer does not sign the interconnection agreement, or ask that it be filed unexecuted by the utility within 30 Business Days, the Interconnection Request shall be deemed withdrawn. After the interconnection agreement is signed by the Parties, the interconnection of the Small Generating Facility shall proceed under the provisions of the interconnection agreement.
- (ix) **Coordination with Affected Systems**
The utility shall coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems with Affected System operators and, if possible, include those results (if available) in its applicable interconnection study within the time frame specified in these procedures. The utility will include such Affected System operators in all meetings held with the Interconnection Customer as required by these procedures. The Interconnection Customer will cooperate with the utility in all matters related to the conduct of studies and the determination of modifications to Affected Systems. A utility which may be an Affected System shall cooperate with the utility with whom interconnection has been requested in all matters related to the conduct of studies and the determination of modifications to Affected Systems.
- (x) **Capacity of the Small Generating Facility**
 - (1) If the Interconnection Request is for an increase in capacity for an existing Small Generating Facility, the Interconnection Request shall be evaluated on the basis of the new total capacity of the Small Generating Facility.
 - (2) If the Interconnection Request is for a Small Generating Facility that includes multiple energy production devices at a site for which the Interconnection Customer seeks a single Point of Interconnection, the Interconnection Request shall be evaluated on the basis of the aggregate capacity of the multiple devices.

- (3) The Interconnection Request shall be evaluated using the maximum rated capacity of the Small Generating Facility.

(xi) Insurance

- (1) For systems of 10 kW or less, the Customer, at its own expense, shall secure and maintain in effect during the term of the Agreement liability insurance with a combined single limit for bodily injury and property damage of not less than \$300,000 for each occurrence. For systems above 10 kW and up to 2 MW, Customer, at its own expense, shall secure and maintain in effect during the term of the Agreement liability insurance with a combined single limit for bodily injury and property damage of not less than \$2,000,000 for each occurrence. Insurance coverage for systems greater than 2 MW shall be determined on a case-by-case basis by the utility and shall reflect the size of the installation and the potential for system damage.
- (2) Except for those solar systems installed on a residential premise which have a design capacity of 10 kW or less, the utility shall be named as an additional insured by endorsement to the insurance policy and the policy shall provide that written notice be given to the utility at least thirty (30) days prior to any cancellation or reduction of any coverage. Such liability insurance shall provide, by endorsement to the policy, that the utility shall not by reason of its inclusion as an additional insured incur liability to the insurance carrier for the payment of premium of such insurance. For all solar systems, the liability insurance shall not exclude coverage for any incident related to the subject generator or its operation.
- (3) Certificates of Insurance evidencing the requisite coverage and provision(s) shall be furnished to utility prior to the Date of Interconnection of the Generation System. Utilities shall be permitted to periodically obtain proof of current insurance coverage from the generating customer in order to verify proper liability insurance coverage. Customer will not be allowed to commence or continue interconnected operations unless evidence is provided that satisfactory insurance coverage is in effect at all times.

(e) Level 1 10 kW Inverter Process

The procedure for evaluating an Interconnection Request for a certified inverter-based Small Generating Facility no larger than 10 kW. The application process uses an all-in-one document that includes a simplified Interconnection Request, simplified procedures, and a brief set of terms and conditions.

- (i) The Interconnection Customer ("Customer") completes the Interconnection Request ("Application") and submits it to the utility.
- (ii) The utility acknowledges to the Customer receipt of the Application within three Business Days of receipt.
- (iii) The utility evaluates the Application for completeness and notifies the Customer within ten Business Days of receipt that the Application is or is not complete and, if not, advises what material is missing.
- (iv) Within 15 days the utility shall conduct an initial review, which shall include the following screening criteria:

- (1) For interconnection of a proposed Small Generating Facility to a radial distribution circuit, the aggregated generation, including the proposed Small Generating Facility, on the circuit shall not exceed 15 % of the line section annual peak load as most recently measured at the substation or calculated for the line section. A line section is that portion of a utility's electric system connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line.
- (2) If the proposed Small Generating Facility is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed Small Generating Facility, shall not exceed 20 kW.
- (3) If the proposed Small Generating Facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition shall not create an imbalance between the two sides of the 240 volt service of more than 20% of the nameplate rating of the service transformer.
- (4) No construction of facilities by the utility on its own system shall be required to accommodate the Small Generating Facility.
- (5) Provided all the criteria in Section 5.4 are met, unless the utility determines and demonstrates that the Small Generating Facility cannot be interconnected safely and reliably, the utility approves and executes the Application and returns it to the Customer.
- (6) After installation, the Customer returns the Certificate of Completion to the utility. Prior to parallel operation, the utility may inspect the Small Generating Facility for compliance with standards, which may include a witness test, and may schedule appropriate metering replacement, if necessary.
- (7) The utility notifies the Customer in writing or by fax or e-mail that interconnection of the Small Generating Facility is authorized within five business days. If the witness test is not satisfactory, the utility has the right to disconnect the Small Generating Facility. The Customer has no right to operate in parallel until a witness test has been performed, or previously waived on the Application. The utility is obligated to complete this witness test within ten Business Days of the receipt of the Certificate of Completion.
- (8) Contact Information – The Customer must provide the contact information for the legal applicant (i.e., the Interconnection Customer). If another entity is responsible for interfacing with the utility, that contact information must be provided on the Application.

Attachment 1 - Definitions

Business Day – Monday through Friday, excluding Federal Holidays.

Distribution System – The utility's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which Distribution Systems operate differ among areas.

Distribution Upgrades – The additions, modifications, and upgrades to the utility's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Small

Generating Facility and render the service necessary to effect the Interconnection Customer's operation of on-site generation. Distribution Upgrades do not include Interconnection Facilities.

Interconnection Customer – Any entity, including the utility, any affiliates or subsidiaries of either, that proposes to interconnect its Small Generating Facility with the utility's System.

Interconnection Facilities – The utility's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Small Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Small Generating Facility to the utility's System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades.

Interconnection Request – The Interconnection Customer's request, in accordance with the Tariff, to interconnect a new Small Generating Facility, [We will have a Tariff] or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Small Generating Facility that is interconnected with the utility's System.

Party or Parties – The utility, Interconnection Customer, or any combination of the above.

Point of Interconnection – The point where the Interconnection Facilities connect with the utility's System.

Small Generating Facility – The Interconnection Customer's device for the production of electricity identified in the Interconnection Request, but shall not include the Interconnection Facilities not owned by the Interconnection Customer.

Study Process – The procedure for evaluating an Interconnection Request that includes the Level 3 scoping meeting, feasibility study, system impact study, and facilities study.

System – The facilities owned, controlled, or operated by the utility that are used to provide electric service under the Tariff.

Upgrades – The required additions and modifications to the utility's System at or beyond the Point of Interconnection. Upgrades do not include Interconnection Facilities.

Attachment 2 - Level 1 10 kW Inverter Process

Application for Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than 10kW

This Application is considered complete when it provides all applicable and correct information required below. Additional information to evaluate the Application may be required.

Processing Fee

A fee of _____ must accompany this Application.

Interconnection Customer

Name:

Contact Person:

Address:

City: State: Zip:

Telephone (Day): (Evening):

Fax: E-Mail Address:

Engineering Firm (If Applicable):

Contact Person:

Address:

City: State: Zip:

Telephone:

Fax: E-Mail Address:

Contact (if different from Interconnection Customer)

Name:

Address:

City: State: Zip:

Telephone (Day): (Evening):

Fax: E-Mail Address:

Owner of the facility (include % ownership by any electric utility):

Small Generating Facility Information

Location (if different from above):

Electric Service Company:

Account Number:

Small Generator 10 kW Inverter Process

Inverter Manufacturer: _____ Model

Nameplate Rating: (kW) (kVA) (AC Volts)

Single Phase _____ Three Phase _____

System Design Capacity: _____ (kW) _____ (kVA)

Prime Mover: Photovoltaic Reciprocating Engine Fuel Cell

Turbine Other

Energy Source: Solar Wind Hydro Diesel Natural Gas

Fuel Oil Other (describe)

Is the equipment UL1741 Listed? Yes _____ No _____

If Yes, attach manufacturer's cut-sheet showing UL1741 listing

Estimated Installation Date: _____ Estimated In-Service Date: _____

The 10 kW Inverter Process is available only for inverter-based Small Generating Facilities no larger than 10 kW that meet the codes, standards, and certification requirements of Attachments 3 and 4 of the Small Generator Interconnection Procedures (SGIP), or the QRU has reviewed the design or tested the proposed Small Generating Facility and is satisfied that it is safe to operate.

List components of the Small Generating Facility equipment package that are currently certified:

Equipment Type Certifying Entity

- 1.
- 2.
- 3.
- 4.
- 5.

Interconnection Customer Signature _____

I hereby certify that, to the best of my knowledge, the information provided in this Application is true. I agree to abide by the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW and return the Certificate of Completion when the Small Generating Facility has been installed. I further agree to relinquish my claims to any REC that will be generated with my equipment as part of this agreement.

Signed: _____

Title:

Date:

Contingent Approval to Interconnect the Small Generating Facility

(For Company use only)

Interconnection of the Small Generating Facility is approved contingent upon the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW and return of the Certificate of Completion.

Company Signature: _____

Title: Date:

Application ID number: _____

Company waives inspection/witness test? Yes _____ No _____

Attachment 3

Certification Codes and Standards

IEEE1547 Standard for Interconnecting Distributed Resources with Electric Power Systems (including use of IEEE 1547.1 testing protocols to establish conformity)

UL 1741 Inverters, Converters, and Controllers for Use in Independent Power Systems

IEEE Std 929-2000 IEEE Recommended Practice for Utility Interface of Photovoltaic (PV) Systems

NFPA 70 (2005), National Electrical Code

IEEE Std C37.90.1-1989 (R1994), IEEE Standard Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems

IEEE Std C37.90.2 (1995), IEEE Standard Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers

IEEE Std C37.108-1989 (R2002), IEEE Guide for the Protection of Network Transformers

IEEE Std C57.12.44-2000, IEEE Standard Requirements for Secondary Network Protectors

IEEE Std C62.41.2-2002, IEEE Recommended Practice on Characterization of Surges in Low Voltage (1000V and Less) AC Power Circuits

IEEE Std C62.45-1992 (R2002), IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000V and Less) AC Power Circuits

ANSI C84.1-1995 Electric Power Systems and Equipment – Voltage Ratings (60 Hertz)

IEEE Std 100-2000, IEEE Standard Dictionary of Electrical and Electronic Terms

NEMA MG 1-1998, Motors and Small Resources, Revision 3

IEEE Std 519-1992, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems

NEMA MG 1-2003 (Rev 2004), Motors and Generators, Revision 1

Attachment 4

Certification of Small Generator Equipment Packages

- 1.0 Small Generating Facility equipment proposed for use separately or packaged with other equipment in an interconnection system shall be considered certified for interconnected operation

if (1) it has been tested in accordance with industry standards for continuous utility interactive operation in compliance with the appropriate codes and standards referenced below by any Nationally Recognized Testing Laboratory (NRTL) recognized by the United States Occupational Safety and Health Administration to test and certify interconnection equipment pursuant to the relevant codes and standards listed in SGIP Attachment 3, (2) it has been labeled and is publicly listed by such NRTL at the time of the interconnection application, and (3) such NRTL makes readily available for verification all test standards and procedures it utilized in performing such equipment certification, and, with consumer approval, the test data itself. The NRTL may make such information available on its website and by encouraging such information to be included in the manufacturer's literature accompanying the equipment.

- 2.0 The Interconnection Customer must verify that the intended use of the equipment falls within the use or uses for which the equipment was tested, labeled, and listed by the NRTL.
- 3.0 Certified equipment shall not require further type-test review, testing, or additional equipment to meet the requirements of this interconnection procedure; however, nothing herein shall preclude the need for an on-site commissioning test by the parties to the interconnection nor follow-up production testing by the NRTL.
- 4.0 If the certified equipment package includes only interface components (switchgear, inverters, or other interface devices), then an Interconnection Customer must show that the generator or other electric source being utilized with the equipment package is compatible with the equipment package and is consistent with the testing and listing specified for this type of interconnection equipment.
- 5.0 Provided the generator or electric source, when combined with the equipment package, is within the range of capabilities for which it was tested by the NRTL, and does not violate the interface components' labeling and listing performed by the NRTL, no further design review, testing or additional equipment on the customer side of the point of common coupling shall be required to meet the requirements of this interconnection procedure.
- 6.0 An equipment package does not include equipment provided by the utility.

Attachment 5

Terms and Conditions for Level 1 Interconnections -- Small Generating Facility No Larger than 10kW

1.0 Construction of the Facility

The Interconnection Customer (the "Customer") may proceed to construct the Small Generating Facility when the utility approves the Interconnection Request (the "Application") and returns it to the Customer.

2.0 Interconnection and Operation

The Customer may operate Small Generating Facility and interconnect with the utility's electric system once all of the following have occurred:

- 2.1 Upon completing construction, the Customer will cause the Small Generating Facility to be inspected or otherwise certified by the appropriate local electrical wiring inspector with jurisdiction, and
- 2.2 The Customer returns the Certificate of Completion to the utility, and

- 2.3 The utility has completed its inspection of the Small Generating Facility to ensure that all equipment has been appropriately installed and that all electrical connections have been made in accordance with applicable codes. All inspections must be conducted by the utility, at its own expense, within ten Business Days after receipt of the Certificate of Completion and shall take place at a time agreeable to the Parties. The utility shall provide a written statement that the Small Generating Facility has passed inspection or shall notify the Customer of what steps it must take to pass inspection as soon as practicable after the inspection takes place.
- 2.4 The utility has the right to disconnect the Small Generating Facility in the event of improper installation or failure to return the Certificate of Completion.

3.0 Safe Operations and Maintenance

The Customer shall be fully responsible to operate, maintain, and repair the Small Generating Facility as required to ensure that it complies at all times with the interconnection standards to which it has been certified.

4.0 Access

The utility shall have access to the disconnect switch and metering equipment of the Small Generating Facility at all times. The utility shall provide reasonable notice to the Customer when possible prior to using its right of access.

5.0 Disconnection

The utility may temporarily disconnect the Small Generating Facility upon the following conditions:

- 5.1 For scheduled outages per notice requirements in the utility's tariff or Commission rules.
- 5.2 For unscheduled outages or emergency conditions pursuant to the utility's tariff or Commission rules.
- 5.3 If the Small Generating Facility does not operate in the manner consistent with these Terms and Conditions.
- 5.4 The utility shall inform the Customer in advance of any scheduled disconnection, or as is reasonable after an unscheduled disconnection.

6.0 Indemnification

The Parties shall at all times indemnify, defend, and save the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other **Party's action or inactions of its obligations under this agreement on behalf of the indemnifying Party**, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

7.0 Insurance

Customer, at its own expense, shall secure and maintain in effect during the term of this Agreement, liability insurance with a combined single limit for bodily injury and property damage of not less than \$300,000 each occurrence. Such liability insurance shall not exclude coverage for any incident related to

the subject generator or its operation. The utility shall be named as an additional insured under the liability policy unless the system is installed on a premise using residential tariff and has a designed capacity of 10 kW or less. The policy shall include that written notice be given to the utility at least thirty (30) days prior to any cancellation or reduction of any coverage. A copy of the liability insurance certificate must be received by the utility prior to plant operation.

Certificates of Insurance evidencing the requisite coverage and provision(s) shall be furnished to utility prior to Date of Interconnection of the Generation System. A copy of any renewals shall be sent to the utility's Authorized Operating Representative so that the utility is always in possession of a current Certificate of Insurance. Customer will not be allowed to commence or continue interconnected operations unless evidence is provided that satisfactory insurance coverage is in effect at all times.

8.0 Limitation of Liability

Each party's liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred.

In no event shall either party be liable to the other party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever, except as allowed under paragraph 6.0.

9.0 Termination

The agreement to operate in parallel may be terminated under the following conditions:

9.1 By the Customer

By providing written notice to the utility.

9.2 By the utility

If the Small Generating Facility fails to operate for any consecutive 12 month period or the Customer fails to remedy a violation of these Terms and Conditions.

9.3 Permanent Disconnection

In the event this Agreement is terminated, the utility shall have the right to disconnect its facilities or direct the Customer to disconnect its Small Generating Facility.

9.4 Survival Rights

This Agreement shall continue in effect after termination to the extent necessary to allow or require either Party to fulfill rights or obligations that arose under the Agreement.

10.0 Assignment/Transfer of Ownership of the Facility

This Agreement shall survive the transfer of ownership of the Small Generating Facility to a new owner when the new owner agrees in writing to comply with the terms of this Agreement and so notifies the utility.

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